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A NOTEWORTHY APPRAISAL OF FEDERALLY AIDED VOCATIONAL EDUCATION

THE report on this subject prepared by Professor John Dale Russell and associates for the President's Advisory Committee on Education is now available for distribution under the title *Vocational Education*. It may be recalled that this committee was first appointed (in 1936) to make a study of experience under the existing program of federal aid for vocational education, the relation of such training to general education and to prevailing economic and social conditions, and the extent of the need for an expanded program of federal aid for vocational education. Subsequently the President requested the committee to give consideration to the whole subject of federal relations to state and local conduct of education. The general report of the committee and certain of the special reports prepared for it have previously appeared, and comment has been made in these pages on the general report and the report on the National Youth Administration.

It is out of the question to give an adequate impression of this signal document of 326 pages in the brief comment that may be made here. Nobody who would affect policy and practice in education at the secondary level should do less than give it a complete, careful reading. To give a partial impression of the nature of the

report, we quote excerpts from the final chapter, which is a "Summary of Major Findings and Conclusions." The portions of this summary omitted here because of limitations of space are no less vital than those quoted.

3. The staff in the federal office for vocational education has carried on its duties zealously, but the members have tended to become immersed in routine activities and to neglect some of the broader aspects of the service. There is now urgent need for the introduction of new staff members of a somewhat different type from the majority of the present personnel.

4. The original conception of the plan for federally reimbursed vocational education was that of a co-operative program operated under the joint support and control of state and federal agencies. In practice the federal controls have been so administered as to shape very definitely the nature of vocational education in the states. The federally supported program has to a considerable extent become a federally dictated program in many states.

5. . . . During the past twenty years many valuable publications have appeared containing instructional and administrative aids, but evaluative research pertaining to the program has been almost entirely lacking.

7. . . . Arrangements for co-ordination of the program of vocational education with the interests of other federal agencies are at present unsatisfactory and should be improved. The policy of lodging federal administrative responsibility for the program in the Office of Education should be continued.

8. Sound plans for federal-state relationships in any co-operative program of educational service should leave the major administrative responsibility to the states. . . .

9. Within the states and local communities vocational education should be set up as an integral part of the regular school system. The creation of a dual system of schools should be carefully avoided.

FINANCING THE FEDERALLY REIMBURSED PROGRAM

12. The federal funds for vocational education are made available only on the basis of matching by state or local funds or both. . . . Matching tends to increase educational inequalities, for only the abler communities can readily provide the funds for matching. For this important reason matching of federal funds is undesirable.

13. The federal grants are earmarked for particular fields of instruction, namely, agriculture, home economics, trades and industries, distributive occupations, and the preparation of teachers for these subjects. Objections to the plan of designating funds for particular subjects are numerous and important. Serious question may also be raised as to whether funds should be designated specifically for vocational education, rather than being made available for any educational purpose.

14. The federal funds for vocational education are distributed to the states on the basis of population ratios in certain classified groups. There are numerous objections to the bases of distribution now in use.

EVALUATION OF THE FEDERALLY REIMBURSED PROGRAM
OF VOCATIONAL EDUCATION

15. The federally aided program of vocational education has increased the number of pupils enrolled in such subjects. Opportunities have been increased notably at the adult level.

16. Excellent work has been done in the development of instructional materials for vocational education under the auspices of the federally aided program. The housing and equipment of schools have been improved. Educational planning has been encouraged. Educators generally have been induced to take a favorable attitude toward the inclusion of opportunities for vocational preparation in the curriculum.

17. In many respects the general operation of the program of vocational education is unsatisfactory. A few of the important points of adverse criticism are: (a) A limited concept of vocational education has been promoted; (b) in some of the financially less able communities funds have been diverted from general education; (c) the creation of a dual school system has been encouraged; (d) the difficulties of administering local schools have been increased; (e) an attitude of separateness has developed among those in the field of vocational education; (f) guidance and placement services have been inadequately provided; (g) the reporting of information concerning the program has been inadequate.

18. The program in home economics has in general been operated in a relatively satisfactory manner. Close co-operation between home and school has been fostered by the home projects. The curriculum of homemaking education has been broadened to include much content of a social nature.

19. For the most part the teaching in vocational agriculture has been of high quality. A new and enriched curriculum is slowly emerging, and the emphasis is being shifted from the manipulative skills and problems of production to problems of an economic and managerial nature. The development of a national organization of pupils in vocational agriculture, the Future Farmers of America, has been of doubtful wisdom.

20. The program in trades and industries has given rise to more complaints than any of the other fields. The instruction in trades and industries for out-of-school youth and for adults has on the whole been relatively satisfactory, as has also the limited program for preparing girls and women for industrial vocations. The criticisms have centered chiefly on the program for young full-time and part-time secondary-school pupils. The chief difficulty has been that in large numbers of schools the program has been developed and carried on without sufficient regard to the best interests of the group of present and future workers. Enrolment has been permitted without consideration of the potential demand for new workers in the trade for which training is given. Those in

charge of the work have often neglected to take advantage of the counsel of interested social groups, such as organized labor, in the development of policies and procedures.

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THE NEEDS FOR VOCATIONAL EDUCATION

23. Three types of school programs seem to be effective in vocational education: (a) the all-day school; (b) the co-operative-type program, in which school work is combined with vocational experience in part-time employment; and (c) part-time and evening classes. Special precautions need to be taken to protect pupils from exploitation, particularly in co-operative-type programs.

24. There is need for an occupational outlook service to provide information on a national, state, and local basis regarding the number of recruits required annually in each of the major occupational fields, and the number in training for each occupation.

25. Vocational education should immediately precede entrance upon the occupation. Under modern conditions this principle precludes the offering of specialized vocational courses in the junior high school period, although exploratory courses may well be provided in the junior high school. Much of vocational education should be restricted to the later years of the secondary school and the junior college. Arrangements must be made for the vocational education of pupils of all levels of ability above the minimum required for self-support. A special problem is the provision of vocational education for young people in rural areas who will later migrate to cities.

26. Six principles are suggested for selecting the occupations for which training of a pre-entry type should be offered in the schools: (a) A certain amount of intellectual content should be involved; (b) the training should have general applicability to a variety of occupations; (c) employment should be available on the completion of training; (d) the time allowed should be sufficient for attaining a satisfactory degree of competence; (e) the occupation should be socially desirable; (f) the number of pupils should be sufficient to permit an economical grouping for instructional purposes. On the basis of these criteria the following occupational fields seem to be desirable for inclusion in the school program: (a) agriculture; (b) homemaking; (c) certain phases of trades and industries; (d) office occupations; (e) distributive occupations. On an experimental basis some of the specialized public service occupations might be considered for inclusion in the school program.

27. The service of the schools in supplying vocational education for occupations of the trade and industrial type should be chiefly to cultivate in the pupils a broad range of basic abilities of value in a whole related family of occupations. The training that is given in vocational education should include instruction with reference to the social and economic situation into which the worker must fit and the legal provisions governing his employment.

28. A sound program of vocational education must include not only training,

but guidance and placement. Schools furnishing vocational education should provide adequately for the guidance of pupils, and should co-operate closely with public employment offices in the initial placement and adjustment of those leaving the full-time school.

30. The federal government must take a vital interest in the development of sound programs of vocational preparation. . . .

31. Federal appropriations for vocational education should not be increased until there has been a relatively generous provision of funds for general education. The greatest advances in vocational education in the long run will come through relatively large federal grants for general, unrestricted educational purposes rather than through grants specifically limited to vocational subjects. . . .

The bulletin contains as its first appendix a fifty-page report by two investigators from organized labor of "The Experience of Labor with Trade and Industrial Education." The position taken in this special report differs from that in the main report, as may be seen in the recommendations that "all high-school time be devoted to general and academic subjects," that "strictly vocational training be given after the boy or girl has entered industry," that "all pre-employment training for a specific trade be gradually eliminated." If one assumes that this position will come to be generally accepted by organized labor and that this group will be increasingly influential in matters of public policy in this country (an assumption well supported by recent trends), more than mere talk will be required to set it aside. Contradictory objective evidence, establishing the effectiveness of specialized trade training in the schools, will be required.

The publication of this report, *Vocational Education*, is the most important event in this field since the passage of the Smith-Hughes Act and the installation of vocational courses pursuant to that act. Based as it is on broad, dispassionate, and otherwise competent inquiry, the report is destined to affect profoundly our policies and programs of vocational education. Recent events in the field seem to indicate that the influences are already at work. For instance, certain publications of the federal authority in vocational education seem to indicate a greater recognition of the need for the "instruction with reference to the social and economic situation into which the worker must fit" referred to in the recommendation above num-

bered "27." Also, as evidence in this connection we may direct attention to the guidance service recently launched in the Office of Education under the direction of the assistant commissioner in charge of vocational education. This new development was noted in the February *School Review*.

Copies of *Vocational Education* are purchasable at forty cents of the Superintendent of Documents in Washington, D.C.

LIGHT ON THE ANECDOTAL RECORD

LATE years have seen the experimental emergence of what is known as the "anecdotal record," which is described in a recent publication as "the setting-down of an anecdote concerning some aspect of pupil behavior which seems significant to the observer." The publication, by Arthur E. Traxler, is called *The Nature and Use of Anecdotal Records*. The character of the content of its thirty-one mimeographed pages is suggested by the captions in the Table of Contents: "Need for Anecdotal Records," "Origin and Definition," "Characteristics of a Good Anecdote," "Situations in Which the Anecdotal Method Is Applicable," "Steps in an Anecdotal Record Plan," "Limitations and Cautions in the Preparation of Anecdotes," "Values and Uses of Anecdotal Records," "Relation of Anecdotal Records to Personality Ratings and Behavior Descriptions," "Sample Anecdotes," "Summary," and "Bibliography." *The Nature and Use of Anecdotal Records* is published as Supplementary Bulletin D by the Educational Records Bureau at 437 West Fifty-ninth Street, New York City, and may be purchased at twenty-five cents.

DISTRICT ORGANIZATION AND HIGH-SCHOOL ATTENDANCE

SOME time ago the *School Review* drew on evidence indicating that the popularization of high-school education for the nation has by now reached approximately 70 per cent; that is, about this percentage of the population of high-school age are now in school. At the time the opinion was ventured that practically complete popularization has been achieved in many communities and districts and that the segments of our population which account for most of the 30 per cent not now in school are the negroes in southern states and

the youth in rural and other sparsely-peopled areas not served by secondary schools.

A Research Bulletin (No. 23) published by the State Department of Public Instruction in Iowa lends support to the explanation just made as it is affected by the district organization in rural territory. The bulletin is called *Type of School District as a Factor in High School Attendance in Iowa* and was prepared by R. C. Williams, formerly director of research in the department and now with the Iowa State Teachers Association, with the co-operation of the Iowa State Planning Board and the Works Progress Administration. The procedure of the investigation was largely that of computing, for the pupils who finished Grade VIII in one school year (1932) in about two-thirds of the counties of the state, the proportion who entered high school and who survived to high-school graduation. The proportions were computed for city-town, consolidated, and rural non-high-school districts. The following general conclusions were drawn. The bulletin includes also a chapter of "implications," most of which bear on the problems of district organization that must be solved before opportunities will be equalized for children in districts with and without high schools.

1. Children who live in school districts which do not maintain high schools enter high school in far less proportion than those residing within districts which have high schools.

2. The greater the distance the child lives from high school, the less the chance that he will enter high school.

3. Transportation to high school at public expense for rural children who complete the eighth grade materially increases the proportionate number who will attend high school.

4. After children from rural non-high-school districts have entered high school, they tend to survive in high school at about the same rate as those living in cities and towns.

5. The consolidated school district has been responsible for greatly increasing the high-school attendance of children living in rural areas. All factors considered, the consolidated school districts are supplying more secondary education to larger numbers of pupils than all other types of districts. Their record is superior in both high-school drawing power and holding power.

6. Considered from the point of view of continued education on the secondary-school level, the present school district structure of the state creates serious inequalities in the opportunities available to children, or the utilization of op-

portunities to secure a high-school education. The children of the state who reside in the 3,938 districts which do not maintain high schools are severely handicapped.

HERE AND THERE AMONG THE HIGH SCHOOLS

A junior high school community-health project Arthur A. Rezny, a teacher in the Slauson Junior High School of Ann Arbor, Michigan, has submitted a description of a community-health project worked out by a social-studies class in Grade VII B, which had been discussing vaccines, preventive medicine, and the county health unit plan. A member of the class had suggested that an authority discuss these problems with the class, and, at a suggestion by the leader, the president of the class appointed a member to invite the school doctor to discuss community health, with special emphasis on the school's problem. In the meantime it was found that seven of the twenty-nine pupils had not been vaccinated. This proportion seemed unusually large in a community with the educational resources of Ann Arbor, including the University of Michigan's medical school. The situation prompted the teacher and the pupils to give "careful consideration to a real problem in the community." A number of children wished to be vaccinated, and it was suggested that a form be sent home to their parents on which permission could be given for the school doctor to do the vaccinating. Arrangements were then made for the doctor to include in his scheduled talk a demonstration of vaccination against smallpox. Four pupils were vaccinated at the meeting.

The day following the demonstration, pupils inquired concerning the possibility of their making a survey to ascertain the number of children who had been vaccinated against smallpox. Pupil and teacher co-operation resulted in a satisfactory questionnaire form which was adopted by the class. The questionnaires were distributed to the home rooms. Pupils explained the blanks and saw to it that each was correctly filled out. In some instances it was necessary to return questionnaires for correction. Pupils took great interest in tabulating from the forms. Class discussion led to the decision to ascertain the number of pupils having vaccinations that would be considered effective by medical authorities, the number with vac-

cinations more than seven years old, and the number not vaccinated. The percentages of pupils in these three groups were found to be, respectively, 34, 22, and 44. Interpretation of the figures disclosed that 66 per cent of the children needed to be vaccinated. From previous discussion it had been learned that, if a community is to be immunized against smallpox, from 60 to 80 per cent of the population must be vaccinated, and, Mr. Rezny reports, "the children at once saw the real problem."

The class agreed that the school doctor could be of service to the community under such conditions, but, because he could vaccinate for demonstration purposes only, it was necessary to conduct a clinic in some other manner. The final arrangement was to have the city health officer do the vaccinating in the school's health clinic.

The class, according to our informant, realized the importance of securing permission from the parents to vaccinate the children. A form letter, the outcome of class work, was written and sent to parents through distribution to home rooms. The responsibility for collecting the letters also rested with the class. At this point members of the class began to feel the reaction of the community. Illustrative of the remarks that troubled the pupils were: "There is not any need for such a vaccination unless there is an epidemic." "I do not believe in vaccinations." "I heard a vaccination killed a boy a couple of years ago." The pupils, however, looked at the positive side and were pleased as the letters were returned and showed that the community had, in general, accepted the project.

During the clinic that followed, 141, or 26 per cent of all pupils in the school, were vaccinated. It was noted that 87 of the 141 pupils had not been vaccinated before. Figures drawn to indicate the extent of immunization show that "at present 74 per cent of the children are vaccinated against smallpox, an increase of 18 in the percentage. It is also discovered that only 12 per cent now have vaccinations which are considered by medical authorities to be questionably effective, and only 26 per cent remain not vaccinated."

It is Mr. Rezny's opinion that the results of the clinic are encouraging. The project was handled by the pupils. "They realized the problem before them. They felt they did a real job. They experienced a real situation. They did a bit of investigating. They learned

how to make a survey. They felt the pressure of the community. They planned and obtained the desired results."

Committees on functions of high-school curriculum The faculty of the Helena (Montana) High School has this year been organized into ten committees concerned with ten "functions" of the school's curriculum. The committees have discussed proposals for improving (1) training for family and home relationships, (2) training for moral cleanliness, (3) training for political citizenship, (4) training for social and civic relationships, (5) preparation for health (personal and social, mental and physical), (6) training for the creative use of leisure time, (7) guidance toward an occupation, (8) guidance into a higher educational institution, (9) education for safety, and (10) education for intelligent consumership. Payne Templeton, superintendent, reports "a commendable amount of interest" and "good progress." Each committee has decided on a number of suggestions or proposals "tangible enough to be carried out during the next year or two." These proposals will constitute the "program of progress" for the high school for the immediate future.

Use of voice-recording for classes in music and in public speaking In West High School of Rochester, New York, of which Charles Holzwarth is principal, funds are being raised by the departments of music and English to pay for a recording machine to be owned by the school. Already more than a hundred twelve-inch records have been made of individual voices of pupils in classes in voice and public speaking. Ernest E. Ahern, instructor in music, looks forward to great usefulness for the machine in improving voice and speaking of pupils.

A project to motivate a unit in the short story A special procedure has been used by Ruth Meierdierks, teacher of English in the Amundsen High School of Chicago, to motivate the study of the short story in three first-year classes. In the early days of the project it was suggested that every pupil familiarize himself with a minimum of twenty-five stories other than those in the basic textbook. For two or three days each week English periods were devoted to extensive silent reading of the supple-

mentary stories, and pupils were expected to have their materials in class on those days. All available short-story collections from the high-school and the public libraries were in the classroom.

When the matter of supplementary reading was brought to the attention of the class, several standard reading lists were circulated through the classroom. Attention was drawn to the fact that short stories usually appear in a printed reading list in collections rather than as individual stories. The class agreed that, if the stories were listed by name rather than by collections, more pupils would be inspired to read them. The opinion was also expressed that a short comment on each story would be helpful as an addition to any reading list. Thus it was agreed that the group should make an annotated list of short stories for reading at the high-school level. The following steps summarize the work in completing the reading list.

1. A card of information was made for each story. The name of the story, the author, comment, and name of pupil responsible for comment appeared on this card. The extract form was put on the board.

2. Each pupil was to contribute at least twenty-five cards with proper information thereon.

3. Pupils alphabetized the cards according to the last name of the authors.

4. Each card was edited by several pupils appointed by the teacher. This task involved selecting the best comment if there were several cards for the same story. Some difficulty was encountered here, since often the comments of the lower-ability pupils would have been discarded. However, by zealous selection, the editors included several comments by each of the mediocre and below-average pupils.

5. The group voted on one member who was responsible for an artistic cover for the short-story list.

6. The final draft was typed by a member of the class.

Among desirable outcomes of the project, as set down by Mrs. Meierdierks, were correct reading habits, intensive reading of the stories, and development of personal responsibility and initiative in the pupils.

WHO'S WHO FOR MARCH

The authors of articles in the current issue PAUL R. PIERCE, principal of Wells High School, Chicago, Illinois. LILY DETCHEN, instructor in education and research secretary, on leave from the University of Louisville; at present engaged as director of scoring in the Evaluation in the

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CAN TEACHERS BE TRAINED FOR NEW CURRICULUMS?

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THE LAG OF PRACTICE BEHIND BEST THEORY

FEW discerning educational or lay observers today question the necessity for thoroughgoing curriculum reconstruction to meet the far-reaching changes constantly occurring in our social order. The factors most essential to successful development of programs of curriculum reorganization are unquestionably teacher attitudes and abilities. Both are largely dependent on the professional training, pre-service and in-service, which is received by classroom teachers. The purpose of this article is to present an analysis of training needs revealed through field experience with new curriculums and to indicate types of professional training by which such needs can be most effectively solved.

The analyses here presented are based on more than eight years of firsthand experience with new curriculums, in both elementary and secondary schools, supplemented by the teaching of curriculum courses in university summer sessions. The term "new curriculums" includes many practices which, judged by frequency of mention in professional literature, appear well established. Unfortunately such practices are well known only in professional discussion; they are relatively new so far as actual use in the field is concerned. Billett's investigation¹ regarding provisions for individual differences and Briggs's study² of the practices of teachers rated as superior amply support fieldworkers' observations of the meager use of accepted theory made in secondary-school classrooms.

Why are classroom practices not more in accord with modern

¹ Roy O. Billett, *Provisions for Individual Differences, Marking, and Promotion*, p. 9. National Survey of Secondary Education Monograph No. 13. United States Office of Education Bulletin No. 17, 1932.

² Thomas H. Briggs, "The Practices of Best High-School Teachers," *School Review*, XLIII (December, 1935), 745-52.

educational theory? Many teachers have had the theory presented to them through professional courses. Do they lack confidence in its soundness? Are they, as is sometimes stated, too heavily loaded to find the needed time? Or is the reason, as Briggs suggests, that the teachers do not receive constant and skilled supervision? Evidence from the field indicates that the initial responsibility lies in the types of training provided teachers both in professional courses and by principals in the local schools. Field experience amply shows that, when teachers experience realistic professional training, they are convinced of the worth of educational theory, find adequate time to put it into effect, and participate wholeheartedly in the development of new curriculum programs. They do not require supervision in the conventional sense.

TEACHING PRACTICES INDISPENSABLE TO NEW CURRICULUMS

Certain teaching activities essential to new curriculums depart measurably from traditional practice and are regarded as serious problems by most teachers. The underlying philosophy and the techniques of such practices must be considered in developing an improved program of professional training. The most important of the practices may be enumerated as follows:

1. *Organizing large units of learning*, involving the relating of materials to significant areas of living, the use of related fields of learning, and the incorporating of instruction in needed skills within the unit;
2. *Developing co-operative pupil-teacher procedures*, resulting in the pupils' understanding the purposes of the unit and its various activities, accepting responsibilities in developing the unit enterprise, and extending unit learnings into current and future everyday living;
3. *Utilizing community materials* obtained by pupils from the home and community agencies and organizing these for classroom use;
4. *Conducting field trips* to study living in the community at firsthand and to observe specialized aspects and enterprises of the regional community;
5. *Making educational contacts with the home* to enlist the co-operation of parents and other adult members in the educative process;

6. *Directing educational experiences in the home and the community*, including such activities as discriminating use of radio and motion pictures, intelligent reading of newspapers and magazines, participation in wholesome recreations, and consistent use of health activities and services;

7. *Utilizing the varied ways of learning* (contrasted with over-reliance on reading and writing) in accordance with individual needs, such as listening to illuminating presentations, observing life-activities, talking effectively, and making things;

8. *Evaluating pupil progress in general education*, involving systematic methods of determining, currently and at subsequent intervals, the extent to which learnings are translated into activities of effective everyday living.

PROFESSIONAL COURSES AND NEW CURRICULUM PRACTICES

What types of professional training must be provided to equip teachers to employ capably and economically the practices called for by new curriculums? What must be the contributions to this training of preparative programs, in-service courses, and professional assistance of administrators? Higher standards for entry into the profession and the training of a new corps of school workers will be eventual factors, but the urgency of the problems caused by social change demands current measures for improvement of professional training.

New courses in general education for teachers.—An outstanding factor in current attitudes toward new curriculum practices is the pre-professional schooling of the teachers themselves. They have been habituated from childhood to the atmosphere, the materials, and the methods of the traditional school. The textbook, memorization, and formalized procedures formed the core of their elementary-school experience, and to these were added compartmentalized subject matter in the secondary school. The first step in improving professional training is to provide advanced courses in true general education.

The purposes of the general-education courses should be to make the teacher social-minded rather than subject-minded and to show how bodies of knowledge are to be used for improving living rather

than to be learned for their own merits. Significant areas of living should be studied directly; materials from all relevant subject fields should be drawn on; student-instructor planning and laboratory procedures should prevail throughout the course; reports on social trends made by national committees and foundations should be included in readings; field trips should be taken to study living in the community; motion pictures, radio, press, and museums should be purposefully utilized; and evaluation procedures to show how the learnings function in daily living should be planned and used by the students.

Relating theory to practice.—Instruction in current professional courses is presented almost wholly on the assumption that, if teachers acquire information regarding a theory, they should be able to practice the theory in the classroom. Research and experience in the field testify to the ineffectiveness of theory thus presented. Other criticisms which fieldworkers at times direct at professional instruction are that it consists largely in abstract generalities, presents numerous and often conflicting theories, is frequently offered by instructors having meager acquaintance with actual teaching, has a voluminous and indiscriminate literature, and is sometimes urged on teachers from an ulterior motive, such as increased salary, promotion, or publicity for an administrator. Whether or not such attitudes have any legitimate bases, the fact that they exist and hamper the application of basic theory creates a problem which merits the serious attention both of instructors in education and of administrative officers.

The way out of the situation is to relate practices to basic principles of education. A set of principles basic to each significant educational area should be determined in the light of the best thinking, research, and established practice. The principles should be limited in number and concisely stated. These principles are guides to practice, just as principles are utilized through case data in medicine and law. As learning situations are analyzed and as practices are formulated and evaluated in the light of basic principles, the teacher begins to sense order and functional values in educational theory. The writer's experience has been that teachers in in-service training projects and in professional courses conducted on the basis described

soon develop confidence respecting the use of theory and exhibit ability in planning and carrying out professionally sound classroom programs. The effectiveness of relating practices to basic principles in professional courses is greatly increased when the instructor has continuing firsthand experience with field practice and when laboratories, in the form of typical public-school classes, are available.

Internship courses in the newer practices.—Every professional institution should possess and administer its own practice center—preferably a public school—in which each member of the professional staff would spend a portion of each year as a regular teacher or administrator. Here basic educational theory should be practiced under the personal direction of the professors of education, each demonstrating the application of significant theory in his specific field. For example, the instructor in curriculum-planning should show teachers how units are organized and conducted; the instructor in psychology, how eye-movements may be modified to improve reading; and the instructor in personnel, how personnel data may be applied in the classroom to improve instruction. For two semesters an investigation was conducted at Wells High School in which teachers in each subject field made a clinical record of all individualizing activities in certain units. The experiment clearly indicated the difficulties experienced by many teachers in using in the classroom the personnel data which were available regarding each pupil. The responsibility for showing teachers how to use significant psychological, curriculum, or guidance theory should not be delegated to assistants or special classroom teachers. Such responsibility rather should be discharged in internships, as in medical internship where applications of theories in surgery, obstetrics, or anesthesiology are taught by men who in daily work practice these applications as they teach them.

A special course in social-service techniques.—When parents are made participants in the educative process and the community is used as a laboratory, school workers need training in certain techniques practiced by trained social workers. In visiting homes, the teacher should be skilled in studying conditions, indicating the home's sphere in education, and producing cordial impressions of the school's interest and purposes. Experimentation extending over

more than three years at Wells High School has revealed that systematic contact with homes is conditioned by many factors. The pupil has proved the most effective, as well as the most logical, medium for making educational contacts. In certain foreign homes contacts with older brothers and sisters have proved more effective than those with the parents. Data recorded over a period of five semesters show that contacts with parents at the school have been more numerous and successful than those in homes. Special training would encourage and assist many teachers in making harmonious and effective contacts and thus improve the school's sphere of service in this important aspect of reconstructed curriculums.

The social-service course should also provide training in techniques for field trips, community surveys, and relations with community agencies. Educational theory refers almost glibly to the field trip, but it is at first something of an ordeal for the average teacher. Many teachers require time before they can make the field trip a worth-while experience to the thirty or more members of the class. There are techniques for noting, studying, and recording data in the social field, and teachers using new curriculums would profit greatly from instruction in such techniques. Likewise, special training must be given teachers in making contacts and in co-operating with heads of commercial concerns and social organizations if the school is to guide educational activities through such agencies.

Competence in a high-school teaching field.—Examination should be made of the time-honored assumption that marked specialization in a given field is a great asset—practically an essential—to effective teaching in that field. The assumption is obviously based on the traditions that secondary education is chiefly memorization of compartmentalized information and that preparation for teaching consists in the teacher's acquisition of great amounts of this information so that he can give it out to pupils. Competence of this nature has more relevance for technical subjects chosen for specialization than for the fields of learning which contribute to general education. The writer once heard Dr. Judd state that some of the most effective teaching which he had witnessed at the secondary level was done in emergencies by teachers having little or no previous preparation in the subject. Field experience at times appears to indicate

that certain potentially capable teachers are virtually handicapped for teaching in general-education areas by specialized training in their teaching fields.

If a high-school teacher possesses an adequate background of true general education and effective professional training, the possibility of fallow areas in his specialized knowledge need not cause much concern. He can cultivate such areas both by his own efforts and through the work of his pupils. Like the teacher of graduate research who works with his students in unknown areas, the teacher in general education should not be expected either by his pupils or by his official superiors to "know all the answers."

The practice developed in core-curriculum classes of Wells High School makes the teacher an adviser and a co-worker with pupils as each class plans, develops, and records the activities of its unit enterprise. Through individualized activities, materials and points of view are often contributed which the teacher could not possibly acquire through his own efforts. Thus the teacher acquires new backgrounds of materials with each conducting of a unit, the pupils develop initiative and responsibility, and the problem of teacher load in new curriculums appreciably diminishes.

Another means of breaking down the barriers of specialized subject matter is certification of high-school teachers by broad subject fields. This type of certification would result in science teachers rather than biology teachers, social-studies teachers instead of history or civics teachers. In this connection the following statement of Chase is illuminating:

A scientist told me recently that the most exciting work in biology is now being done by chemists, because chemists are not handicapped by biological language. Indeed, this illustrates a healthy movement now becoming common. We find biologists in physics laboratories such as the Bartol Foundation in Swarthmore. We find mathematicians in biological laboratories. Some day we may find an engineer or a psychologist revolutionizing economic concepts.¹

CURRICULUM TRAINING CONDUCTED BY PRINCIPALS

The principal and in-service training.—The principal must accept a large share of responsibility for the training of teachers in new

¹ Stuart Chase, *The Tyranny of Words*, p. 232. New York: Harcourt, Brace & Co., 1938.

curriculum practices. In amount and in quality his professional preparation must be equivalent to that of a professor of education, though of a more general character. Training in conducting scientific social and educational surveys should be included, supplemented by the principal's continuing study of social trends and curriculum developments.

Above all, the principal should be expert in training teachers to utilize basic principles in planning and developing learning experiences. The organization of materials of instruction provides an especially concrete and purposeful approach to a program of in-service training. The writer has found it effective to have a teacher give him unit outlines, which he studies and returns to the teacher on the following day. He may make suggestions for the teacher by written comment, or he may have a private conference with the teacher or visit a class. Small group conferences regarding the units being currently conducted are held with teachers who have parallel classes in the same subject field or with teachers who have the same pupil groups in different subject fields. Conferences of larger groups are mainly concerned with the application of principles to problems dealing with areas of living and with the scope and the purposes of the curriculum as a whole. One objective of these conferences has been, for each important area of the high-school curriculum, the development of basic principles which will be usable for the average public-school teacher. Thus far, basic principles have been determined for the core curriculum, pupil activities, industrial arts, English arts, science, and public relations.

Developing new practices in selected curriculum areas.—As a means of lessening problems of teacher load as well as of teacher inexperience and confusion, while new curriculum practices were being developed at Wells High School, many of the new practices were apportioned among the core-curriculum areas for which they were especially relevant. It is not so important that each teacher perform all the new types of teaching practices as that pupils benefit widely from the experiences involved in such practices. For example, field trips for studying living are assigned to social-studies classes, health diagnosis and community follow-up to science classes, participation in assembly programs to English classes, community recreation to

physical-education classes, and home contact to home rooms. This policy insures for all pupils the experiences resulting from each of these teaching activities, while materially reducing, at the first, the number of innovating practices in which each teacher must develop effectiveness. Similarly, pupils in parallel classes are grouped together during given periods, and instruction, in the form of presentations on selected topics, special motion pictures, or reading in a departmental library, is directed by a single teacher, the other teachers of these classes being thus freed for other activities. Such administrative provisions do much to eliminate duplication of effort and to provide teachers with time for planning new curriculum practices.

Making the local school the chief unit for curriculum development.—

The factors governing effective curriculum reconstruction are chiefly local. While utilizing fully the supplementing services of state or county departments and the advice of curriculum specialists, the principal and his staff alone have sufficient acquaintance with pupils, parents, and the resources of the community to construct a curriculum for effective daily living. Primarily, the principal trains his teachers to depend on accepted theory and practice in reconstructing the curriculum, but he also has a standing responsibility to stimulate them to discover new techniques and to improve curriculum theory itself. Practical school and classroom situations have been laboratories for the development of educational theories of Pestalozzi, Parker, Dewey, Parkhurst, and Morrison. If practices are related to basic principles, if clinical records are accurately kept, if outcomes are carefully analyzed and evaluated and the established results are published, local teaching staffs will prove capable, not only of using new curriculums, but even of sharing with pioneer thinkers and research workers in the development of new curriculum principles and procedures.

COLLEGE EDUCATION WITHOUT HIGH-SCHOOL GRADUATION

LILY DETCHEN

University of Louisville

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THE EXPERIMENTAL PLAN

IN THE autumn of 1934 the University of Louisville admitted from Louisville high schools thirteen students who had completed only three years of the regular four-year program of studies. In the spring of 1938 these students were graduated from the College, and one of the first landmarks in experimental research in southern higher education was firmly set. For these students were admitted for pursuance of the regular college curriculums under an experimental plan undertaken with special permission of the Southern Association of Colleges and Secondary Schools. The purpose of the experiment was to promote for superior students a better articulation between high school and college. It was hoped that these students would be challenged earlier to greater intellectual efforts in a more stimulating environment than might be provided for them in high school. As far as the University of Louisville was directly concerned, the plan was consistent with its College-wide policy of placing academic advancement on an achievement, rather than on a credit-earning, basis—a plan which has been entirely successful. Most of the difficulties experienced have resulted from inability to interest enough students, so that the annual quota of twenty-five students allowed by the Southern Association has never been reached. From the first year, 1934, to 1938, thirty-five students were enrolled although a total of one hundred would have been allowed. Failure to enrol the full quota has not been entirely due to the fact that the methods of selection have been too strict but more to the fact that students and parents have been afraid of the undertaking.

It is the purpose of this article to describe the methods of selection and to present the evaluations that have been made.

THE METHODS OF SELECTION

At first, students admitted under this plan were required to make scores above the sixtieth percentile of performance for the regular group of Freshmen in the University of Louisville. Later it was decided that this standard was too rigid, and it was dropped to the fiftieth percentile. This standard means that the students accepted without high-school graduation stand above the College norm of median aptitude or achievement in the following tests: the Psychological Examination of the American Council on Education, the Nelson-Denny Reading Test, and the Cooperative English Test in Usage. In addition, these students are required to equal the norm for median achievement of Louisville high-school Seniors in the Sones-Harry High School Achievement Test. While the College has adhered to the principle of examining and will continue to do so for another year, which completes the duration of the experiment, in practice the high-school principals have largely determined the choices. It is they who make the first recommendations, and few of their choices have been rejected during the period of time covered in the examining. Undoubtedly the principals are governed in their recommendations by the University's test standards, with which they are familiar. During the course of the four years that these students have been entering the University, 420 raw scores which they have made on the entrance tests have been transmuted into local or national percentiles. Of the 420 percentiles, only 31 in the accepted group have been under the fiftieth percentile, and these lay between the fortieth and the fiftieth percentiles. In addition to the examinations and the principals' recommendations, the recommendations of high-school teachers, interviews with the dean of the College, and interviews with the parents of the applicants have been used in making the selections. A few students were rejected because they did not seem mature enough to undertake the work. Others who were interested in taking only two years of work in preparation for admission to some of the eastern women's colleges were dissuaded because the attitudes of these colleges toward such a plan were not known.

METHODS OF EVALUATION

After the initial process of selection these students are treated in no way differently from their Freshman classmates. The advising that they receive is the same, their programs of studies are the same, and their extra-curriculum activities are the same. The faculty are not advised of their identities. Classes in the Junior College are large, and identities are lost. Marking is objective. For every student received under this plan, another student in regular standing has been selected to act as a control. The control student is matched for sex and for standing in the placement tests, and special care is taken to assure the difference of one year in age—the experimental factor. When a control student withdraws from the College, a substitute is selected from the original class to take his place at that point. All studies that have revolved around this group, then, have been on a comparative basis, the control group offering the comparison. A number of evaluations of various sorts have been made.

Similarity of programs in the Freshman year.—One of the earliest comparisons showed the similarity of the programs of studies for the experimental and the control students. In the first year the program is, in the main, prescribed. There have been no curriculum changes in the College that would alter the situation during the period under investigation, so that a study for a particular year may be considered typical for all. The data in Table 1, which show the number of enrollments for each group in the Freshman courses, sum up to about a 90 per cent similarity of program. After the Freshman year there is some divergence of programs, but, in the writer's opinion, this divergence is accidental and is of no particular significance for the study of contrasts.

Quality point standing.—There have been, of course, numerous studies of quality point standings. Those interested in the details of the studies of marks may consult the reports to the Southern Association, which have been published in the annual proceedings. Suffice it to say here that in no aspect of the studies of marks have significant differences been found in the performance of the two groups. The various aspects treated have been: marks at six-week periods and final examination marks (especially marks in the first six weeks enrolled, which may be considered the crucial adjust-

ment period); marks at each academic level; marks in survey courses versus marks in other courses; and marks in foreign languages. These studies have been based on total point standings and on the number of letter marks received. Average point standings, it was believed, might look alike and yet be distinctly different in character; hence the study of the number of letter marks. On both measurements the experimental students have always equaled the control students, and, since both groups have been distinctly superior samplings of the student body, it is not surprising that their

TABLE 1
COURSES PURSUED BY EXPERIMENTAL AND CONTROL
STUDENTS IN SECOND SEMESTER OF
FRESHMAN YEAR

COURSE	NUMBER OF STUDENTS PURSUING COURSE	
	Experimental Students	Control Students
English 102.....	8	8
Social-sciences survey.....	12	13
History of civilization.....	12	11
Foreign languages.....	12	9
Elective subjects.....	12	11

scholastic standings, which average 1.6, are higher than the College average of 1.0.

Ratings in the National Sophomore Tests.—As the University of Louisville co-operates annually in the National Sophomore Testing Program of the American Council on Education and has done so since 1932, it has been possible also to consider the achievement of the two groups on a more objective basis than that furnished by marks and to compare them with Sophomores in other institutions. Between 1936 and 1938 twenty-two of the experimental and control groups took the Sophomore tests. All the forty-four students have stood above the national norm for median achievement in the general-culture section of these tests, with the exception of two control students and two experimental students. The battery comprises tests of general culture, general science, world-history, literary ac-

quaintance, contemporary affairs, and English usage. The norms for the six tests are further broken down into part scores so that it is possible for each student to receive fourteen percentile ratings. Of 308 percentiles recorded for the 22 experimental students, 287 have been at or above the national median, while 264 of these have been at or above the seventy-fifth percentile. In the case of the control students, 279 have been at or above the median and 261 at or above the seventy-fifth percentile. Table 2 gives the entire distribution.

TABLE 2
DISTRIBUTION OF SCORES MADE BY CONTROL AND
EXPERIMENTAL STUDENTS ON NATIONAL
SOPHOMORE TESTS

PERCENTILE SCORE	NUMBER OF SCORES	
	Experimental Students	Control Students
90-100.....	191	201
75- 89.....	73	60
50- 74.....	23	18
40- 49.....	21	29

Participation in extra-curriculum activities.—In college participations other than the scholastic, there have been significant differences in the two groups in the first semester. These differences have been erased before the close of the second semester, for the experimental group has made a rapid adjustment to the normal. Replies to questionnaires gave information with regard to the amount of time devoted by each student to outside activities, including employment, campus activities, church activities, all social activities (such as "dating"), all home activities, and spare-time pursuits. It was learned that parents, evidently being of the mind that these young people had undertaken a load in the new venture, have demanded less time from the experimental students. Experimental students at first avoided outside employment, and they did not participate so heartily in campus activities as did the control students. Further inquiry revealed that, in the case of employment, they feared to undertake too much and that, in the case of activities,

they had difficulty in getting a foothold because they have not been in the company of their own classmates as have other students. Both the employment problem and the problem of participation in activities have cleared up shortly after the first semester, when experimental students have decided that there is no reason for them to coddle themselves and at the same time have been able to extend their acquaintanceship. This result has been a natural evolution, however, uninspired by any direction from the College. The great

TABLE 3

HOURS DEVOTED TO EXTRA-CURRICULUM ACTIVITIES BY EXPERIMENTAL AND CONTROL STUDENTS ADMITTED IN 1934

ACTIVITY	NUMBER OF HOURS DEVOTED MONTHLY TO ACTIVITY			
	First Semester		Second Semester	
	Control Students	Experimental Students	Control Students	Experimental Students
Paid employment.....	173	33	157	131
Special instruction.....	25	4	30	17
"Dates".....	266	124	241	230
Hobby.....	163	96	75	80
Fraternity.....	67	123	43	117
Other campus organizations.....	279	152	260	280
Library study.....	301	249	330	258

difference that has occurred in the first semester in the amount of activities and the extent to which the difference has later cleared up may be read in Table 3.

Opinions of parents.—Another aspect of evaluation was a survey of the opinions of parents of the experimental-group students concerning changes of behavior noted in the subjects. A questionnaire covering some sixty points of student behavior was sent in one semester to the parents of thirteen pairs of experimental and control students. On 90 per cent of the questions both parent groups expressed a favorable reaction to the question concerning the "student's adjustment during his first college year." The faculty have always been doubtful of the value of this particular questionnaire, however, and have thought that the supplementary statements sent

volitionally by the parents were probably of much more significance. At the time the questionnaires were returned, additional statements were sent by the parents of six experimental students and nine control students. The following are excerpts from the statements of the parents.

STATEMENTS OF PARENTS OF EXPERIMENTAL STUDENTS

1. More interested in diversified activities; more self-assured; more self-dependent; happier.
2. More interested, serious, and independent.
3. More mature, self-reliant, more anxious for higher education; sees life's problems more seriously.
4. Has more self-confidence, poise, and interest in affairs outside of college; we want to express our pleasure over the mental and worldly development that M. has made this year.
5. Temporary confusion and lowering of sense of values; better adjustment to other sex.
6. Much happier than in high school; much more interested; likes her teachers better.

STATEMENTS OF PARENTS OF CONTROL STUDENTS

1. Much more serious in purpose; tendency to brood—talks less; takes school more seriously; interested in wider variety of things.
2. More self-confident.
3. More energy and much better health; discouraged at entrance, but now entirely satisfied; made good and new friends; social connections through sorority.
4. More nervous and easily tired; more mature; does not go out as much; school and work occupy most of her time.
5. Normal adjustment to college life; greater interest in studies.
6. More tolerant; gives more expression to desire to decide on a career.
7. More dignity; studies more; more tolerance and kindness; more careful of appearance.
8. More self-reliant; more sociable; less interested in younger members of family; more self-assertive.
9. Greater interest in his school work and activities; more mature thinking; more sense of responsibility at home.

Personalities of students.—The College of the University of Louisville does not have the guidance personnel and facilities that would have made possible intensive case studies of these students, but it has done the next best thing. The graduate members of a course in educational guidance have each year undertaken case studies of the

experimental and the control students. They have worked according to an outline prepared for them by their instructor and the research secretary. Additional information concerning the character of this group has been secured through these case histories. The impression given by these histories is not only that the experimental students have the ability certified by the examinations but also that they know their own minds and are more sure about their future plans than are the control students. They are self-reliant; they want heavy and rich programs of studies; they are interesting, vital people; they are not the "bookworm" type; they are independent in thought and action; they are leaders; they are adventuresome in their outlook. The following data are offered in support of these seemingly casual statements: seven of the experimental students have held positions with the National Youth Administration; one was elected "Freshman sweetheart"; one, a Junior, was elected the most popular girl on the campus; one was president of her sorority; one, who withdrew after his Sophomore year, is a radical agitator for labor unions; one is a state ping-pong champion; one married a college professor and the pair have joined the Loyalist forces in Spain; an experimental student was selected as one of the five women considered the most outstanding all-round women on the campus; several have held the better positions on the editorial boards of University publications; two have been outstanding in campus dramatics; one is a playwright whose play was produced in the campus Little Theater; one has received a contract from Massine, director of the Ballet Russe; another is talented in art and is studying in New York at one of the art schools; one transferred to the University of Wisconsin and was graduated there as a member of Phi Beta Kappa; one holds two of the three women's records in swimming for the University of Louisville; one of six Seniors elected at graduation in 1938 to the University's scholastic-honors society was an experimental student.

Student opinion.—During the course of the interview which the guidance-course students had with the experimental and the control students, the following question was asked: "Do you regret the missed year?" or "If you had your choice again, would you come to college on the experimental plan?" The experimental students were

unanimously in favor of the plan. Contradictorily, the control students were almost as unanimously in favor of a fourth year in high school. It is a question how much significance should be attached to the decisions of either group.

STATEMENTS OF CONTROL STUDENTS

I would not want to give up the last year. I was just sixteen when I was graduated and felt that fifteen was too young to enter college.

I'm glad I stayed the last year. I learned to get along in the world and gained a certain amount of social maturity.

I doubt whether the experimental students are mature enough for college. The younger people are, the less they know about what they want and the college can help you only if you know what you want. There may be exceptions though, and, when they are found, I think it is wisest to place them in college.

The last year was the best of all the high-school years. You miss your chance at leadership if you omit it. Just the same I'm glad I'm out of *school* and now in *college*.

Wouldn't have missed my Senior year for anything. That was the only time I had any real fun. Enjoyed the personal contact with the teachers and the extra freedom.

I was bored in my Senior year. It was just stuff I could have got in college with the proper choice of courses.

STATEMENTS OF EXPERIMENTAL STUDENTS

I would make the choice again if I had the chance. Consider it a privilege to have omitted the last year. The saved year will permit me to augment my finances, if it becomes necessary, to continue my medical training.

I would not take another year in high school for anything. Since my father's death I feel that I was exceedingly fortunate to have been in this group.

The sooner a person can get himself into college, the sooner his education begins. I did not miss anything by not going on in high school. I would have missed a great deal more by not coming to college last year.

I am not a bit sorry. I am one year nearer my life's ambition to be a great surgeon.

I am not sorry, but I wish I had a diploma because I missed getting a part-time job in the A. and P. by not having a diploma.

I can't understand why anyone would think he missed something by not doing the last high-school year. I think, though, that my mother might not think so.

SIGNIFICANCE OF THE PLAN

The significance of this experiment is twofold. First, it is the beginning of experimental research in higher education in the South. Second, it lends further support to the growing thesis that there may be fallacies in the existing practices, in which the assumption is that the educational process is best measured in units of time. While the Louisville study refers only to the period that interlaces high school and college, it can, without much projection of imagination, give implications for the more advanced levels. At the present time the University of Louisville is exceedingly gratified in a statement presented by the Committee on Entrance Matters, a subcommittee of the Southern Association of Colleges and Secondary Schools, at the meeting of the association held in March, 1938, at Dallas, Texas. This statement "has grown out of the experiments that have been conducted . . . at the University of Louisville and Birmingham Southern College [and] urges the abandonment of all fixed lists of required college-entrance credits, the consideration of differentiated curriculums suited to various levels of ability and preparation, and, in short, the entire adaptation of our higher education to individual differences."

THE SLOW-MOTION PICTURE AS A COACHING DEVICE

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CURRENT USE OF SLOW-MOTION PICTURES IN COACHING

THE importance of visual aids in instruction is increasingly recognized. Every day new visual devices are being purchased by school administrators and are being used by teachers who have little or no knowledge of the actual value of the specific aids selected.

Motion pictures are being used by athletic coaches more extensively every year. The leading high schools, preparatory schools, and colleges spend thousands of dollars annually in the taking of motion pictures of athletic contests. Coaches are of the opinion that the showing of these films to the athletes who participated will bring about an improvement in individual or team performance. Coaches have observational evidence of the truth of this opinion but practically no objective evidence.

NATURE AND CONDUCT OF THE INVESTIGATION

The investigation here reported was designed to secure evidence of the value or the lack of value of slow-motion pictures as a coaching device, with particular reference to the high jump. Attention was given to the use of these pictures in presenting a new form of jumping, in diagnosing and correcting errors, and in stimulating practice. The high jump was selected because it contains factors of fundamental importance in various other athletic events. Timing, coordination, natural ability, facility in given skills, and other factors are involved. Hence it may be hoped that evidence derived here will apply to other forms of athletic performance.

The human eye is not sensitive enough nor quick enough to catch

even a small portion of what actually takes place in an athletic event. Actions which look to be easily executed turn out, upon analysis, to be exceedingly complex. It is at this point that slow-motion pictures may bring about a revolutionary change in coaching methods.

A number of leading track coaches were interviewed with regard to various forms of high jumping, the form favored, methods of teaching, provision for individual differences, and the like. Standard books and articles on coaching the high jump were analyzed. Slow-motion pictures of three champions¹ were available and were analytically studied.

Forty pupils at Polytechnic High School, Los Angeles, responded to a call for volunteers for the experiment. Fourteen were eliminated because of irregular attendance, excessive weight, lack of physical ability, and other causes. The remaining twenty-six, all Sophomores, were matched into thirteen pairs equated as nearly as possible on age, height, weight, leg spring,² previous athletic experience, and natural ability in jumping as shown by scissors-style jumping.³ The data for these pairings are given in Table 1. The averages show the groups to be identical in age. The control group was superior in height by 0.35 of an inch, in leg spring by 0.40 of an inch, and in first scissors jump by 0.65 of an inch. The experimental group was superior in weight by 0.6 of a pound and in intelligence quotient by 1.4. All differences were statistically insignificant.

The experiment covered six weeks of the regular track season. The groups came at nine and ten o'clock but were so divided that half of each group was handled in each hour so that no advantage in time of day could accrue.

For determining the average jump of each pupil, the first week

¹ Robert Van Osdell, of the University of Southern California, former champion of the Intercollegiate Association of Amateur Athletes of America; Walter Marty, Fresno (California) State College, former holder of the world's record; and Simon Toribio, record-holder of the Philippine Islands.

² Leg spring is a jump straight up without take-off.

³ Scissors style is the natural form of untrained jumpers and may be seen wherever boys are practicing jumping. The legs go over the bar one after the other in "scissors" style. The western-roll form is much more complicated and involves throwing the body over the bar horizontally and approximately at full length.

TABLE 1
COMPARISON OF BOYS IN CONTROL AND EXPERIMENTAL GROUPS

Boy	Age	Height (Inches)	Weight	Intelli- gence Quo- tient	Previous Athletic Experience	Leg Spring (Inches)	First Scissors Jump (Inches)
Pair 1:							
Control.....	16	71.50	140	96	Basketball	16.00	54.0
Experimental.....	16	70.50	133	100	Basketball	15.50	52.0
Pair 2:							
Control.....	16	69.50	134	98	None	20.00	54.5
Experimental.....	16	69.50	132	101	None	17.00	54.0
Pair 3:							
Control.....	16	71.75	167	107	None	22.25	55.0
Experimental.....	16	70.00	165	90	None	24.00	53.0
Pair 4:							
Control.....	16	69.00	145	96	None	19.13	54.0
Experimental.....	17	69.25	149	99	None	22.25	55.0
Pair 5:							
Control.....	17	66.25	142	97	Soccer	26.00	57.0
Experimental.....	17	67.00	148	90	None	21.75	54.0
Pair 6:							
Control.....	17	63.50	117	97	None	20.50	55.0
Experimental.....	18	65.00	120	88	None	16.50	54.0
Pair 7:							
Control.....	16	65.50	115	100	None	15.50	51.0
Experimental.....	15	65.00	118	96	None	19.50	50.0
Pair 8:							
Control.....	16	66.00	107	97	None	22.00	52.0
Experimental.....	16	63.50	105	95	None	22.13	53.0
Pair 9:							
Control.....	17	66.00	146	78	None	19.00	52.0
Experimental.....	18	68.00	149	84	None	21.25	51.0
Pair 10:							
Control.....	15	68.50	134	121	None	21.50	55.0
Experimental.....	15	68.00	137	120	None	21.50	53.0
Pair 11:							
Control.....	16	67.75	135	103	None	22.00	54.0
Experimental.....	15	67.00	133	122	None	18.00	56.0
Pair 12:							
Control.....	17	72.00	139	97	None	18.50	56.0
Experimental.....	17	71.50	141	101	None	18.00	54.0
Pair 13:							
Control.....	17	68.00	130	102	None	14.25	52.0
Experimental.....	16	66.50	129	122	None	14.00	54.0
Average:							
Control.....	16.3	68.10	134.7	99.2	19.74	53.96
Experimental.....	16.3	67.75	135.3	100.6	19.34	53.31

was given over to jumping in scissors style for height. In addition, instruction was given in the standard terminology used in coaching the high jump. In the second week instruction began in the western-roll form, new to all boys participating. This instruction included detailed explanations, demonstration of the whole movement and of selected parts, and initial attempts by all boys, followed by individual criticism and assistance. This procedure was continued for the remaining five weeks.

In addition to the foregoing procedure, which was identical for both groups, the pictures of the champion jumpers were shown to the experimental group in the second week. These films were run, re-run, and discussed. Both slow and normal speeds were used. The film was stopped at crucial points. Continuous discussion and questioning from the boys accompanied this showing. During the third week slow-motion pictures of the boys in the experimental group were taken during the regular practice period and were shown to that group. Again detailed analytic discussion of good form, defects, and co-ordination took place. During the fifth and sixth weeks the experimental group saw its own pictures and also those of the champions again and engaged in further discussion.

THE RESULTS OF EXPERIMENTATION

The rate of progress and the final results are shown in Table 2. Examination of the figures reveals some interesting items. It must be noted here, before the results are discussed, that this experiment involved only twenty-six subjects and six weeks' time. At best, therefore, the results are only suggestive. It is hoped that other more extensive studies may be carried on.

It will be noted that the groups were practically equal on the original scissors-style jump. Marked differences appeared, however, as soon as the different methods of instruction took effect. After three weeks of instruction and practice, the experimental group, having the advantage of seeing and discussing pictures of champions and pictures of their own initial performances, outjumped the control group by 5.39 inches on the average jump. At the end of the fourth week the superiority of the experimental group became 5.96 inches. During the fifth week the experimental group outjumped the

TABLE 2
HEIGHT OF JUMPS (IN INCHES) OF PAIRED GROUPS OF BOYS
DURING PROGRESS OF EXPERIMENT

BOY	ORIGINAL SCISSORS JUMP	WESTERN-ROLL JUMP				GAIN OF BEST WESTERN ROLL OVER SCISSORS JUMP	DIFFERENCE BETWEEN POOREST AND BEST WESTERN ROLL
		Test 1 (Third Week)	Test 2 (Fourth Week)	Test 3 (Fifth Week)	Test 4 (Sixth Week)		
Pair 1:							
Control.....	54.0	48.0	49.0	49.0	51.0	- 3.0	3.0
Experimental....	52.0	52.0	55.5	55.0	54.0	3.5	3.5
Pair 2:							
Control.....	54.5	52.0	51.0	52.0	53.0	- 1.5	2.0
Experimental....	54.0	54.0	55.0	56.0	54.0	2.0	2.0
Pair 3:							
Control.....	55.0	51.0	54.0	56.0	58.0	3.0	7.0
Experimental....	53.0	52.0	55.0	57.0	56.0	4.0	5.0
Pair 4:							
Control.....	54.0	55.0	56.0	57.0	57.0	3.0	2.0
Experimental....	55.0	58.0	60.0	59.0	60.0	5.0	2.0
Pair 5:							
Control.....	57.0	58.0	60.0	59.0	61.0	4.0	3.0
Experimental....	54.0	56.0	59.0	60.0	60.0	6.0	4.0
Pair 6:							
Control.....	55.0	50.0	54.0	58.0	56.0	3.0	8.0
Experimental....	54.0	53.0	56.0	57.0	57.0	3.0	4.0
Pair 7:							
Control.....	51.0	48.0	47.0	50.0	52.0	1.0	5.0
Experimental....	50.0	52.0	55.5	55.0	55.5	5.5	3.5
Pair 8:							
Control.....	52.0	40.0	42.0	42.0	44.0	- 8.0	4.0
Experimental....	53.0	53.0	56.0	57.0	58.0	5.0	5.0
Pair 9:							
Control.....	52.0	50.0	52.0	53.0	54.0	2.0	4.0
Experimental....	51.0	57.0	59.0	61.0	61.5	10.5	4.5
Pair 10:							
Control.....	55.0	50.0	52.0	55.0	57.0	2.0	7.0
Experimental....	53.0	54.0	57.0	57.0	57.0	4.0	3.0
Pair 11:							
Control.....	54.0	48.0	54.0	54.0	55.0	1.0	7.0
Experimental....	56.0	57.0	59.5	59.0	59.0	3.5	2.5
Pair 12:							
Control.....	56.0	52.0	53.0	54.0	55.0	- 1.0	3.0
Experimental....	54.0	56.0	56.0	57.0	57.0	3.0	1.0
Pair 13:							
Control.....	52.0	40.0	40.0	43.0	47.0	- 5.0	7.0
Experimental....	54.0	58.0	58.0	59.0	59.0	5.0	1.0
Average:							
Control.....	53.96	49.38	51.08	52.46	53.85	0.04	4.77
Experimental....	53.31	54.77	57.04	57.62	57.54	4.62	3.15

control group by 5.16 inches per jump. The control group then began to hold its own in improvement. Their rate of progress was somewhat faster than it had previously been. At the end of the sixth week the superiority of the experimental group was reduced to 3.69 inches on the average jump.

It is interesting to note that the experimental group made their best record during the fourth and the fifth weeks and did not improve thereafter. The control group, in contrast, was just reaching its maximum during the sixth week. A valuable extension of this study would discover whether the control group would eventually match, fall short of, or exceed, the records of the experimental group.

Comparison of the original scissors jump with the best performance on the western-roll style shows that the experimental group had increased the height of their jumps by 4.62 inches on the average. The control group after six weeks of instruction and practice had been able to add an average of only 0.04 of an inch.

However, when the poorest and the best performances on the western-roll style are compared, it is seen that the control group made progress but that they had a handicap which was eliminated for the experimental group by the pictures. The average of the differences between the poorest and the best western-roll jump for the control group was 4.77 inches; for the experimental group, 3.15 inches. This difference is explained by the fact that the first performances by the control group on the western-roll style were far below their original marks on the scissors jump. The experimental group, on the other hand, were at once able to use the western-roll style about as well as they had the scissors style. The motion pictures evidently cut down greatly the initial trial-and-error period. After the control group had learned the fundamentals of the new style, they progressed as rapidly as did the experimental group. It would be of interest to discover how long it would take the control group to overtake the experimental group. Thus far the evidence indicates that slow-motion pictures are of great value in initial learning but nearly on a par with directions, demonstrations, and verbal analyses of faults as the learning period progresses. This finding presents a further problem for study, namely, the diversification of the use of pictures for different periods of learning. The experiment might

also be extended to test the limits of the boys' abilities and to see what, if any, differences would appear in the later stages of learning.

CONCLUSIONS

The following conclusions seem justified: (1) The use of slow-motion pictures in coaching the high jump made for faster progress and better achievement. (2) The use of slow-motion pictures in coaching the high jump eliminated, to a large extent, the initial period of trial and error. (3) Illustrations of good form in slow-motion pictures seem definitely superior to verbal directions and physical demonstration of good form, particularly during the initial period of learning. (4) The use of slow-motion pictures in coaching the high jump was of definite assistance in aiding performers to change from a familiar form of skill to a new, superior, but unfamiliar form. (5) The use of slow-motion pictures enabled the coach to handle effectively a larger number of boys. The average amount of instructional time for the individual was significantly cut down. (6) The use of slow-motion pictures in coaching the high jump contributed definitely to the interest and the attention of the boys. There was marked interest in analyzing individual errors and in improving pictured defects. (7) The general conclusions derived from this experiment seem to be in agreement with those derived from investigations of the use of motion pictures in other forms of learning.

RELATION OF INDIGENCY TO SCHOLASTIC SUCCESS

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★

THE SETTING AND PURPOSE OF THE STUDY

DURING the years from 1929 to 1934 many requests for aid were received from pupils by the school administrators at the Nolan Intermediate School, Detroit, Michigan. These pupils requested help not only in purchasing books and supplies but also clothing, shoes, free lunches, fuel, medical care, and glasses. Many of the requests were referred to the Department of Public Welfare, the Lions Club, or some other civic organization, but it was still necessary for the school to furnish books, supplies, and approximately four hundred lunches a day.

Before any pupil received aid from the school, his case was thoroughly investigated. The home-room teacher made a personal investigation at the home and reported the findings to the school. These investigations were recorded on a form especially designed for the purpose.

The present study was made to determine the effect of indigency on the scholarship of intermediate pupils. "An indigent pupil" is defined as one who, after a careful investigation, has been granted aid from the school.

THE EVIDENCE—ITS SOURCES AND TREATMENT

From the total number of indigent pupils who had been graduated from the Nolan School, three hundred were selected at random from among those who had completed six semesters of work at the school. For each of the three hundred indigent pupils a non-indigent pupil was selected whose mental rating, age, curriculum, and sex corresponded to those of the indigent mate. ✓

equating

There were included in this investigation 128 pairs of boys and 172 pairs of girls. The mean chronological age in months at entrance to the Nolan Intermediate School was 139.6 for the indigent group; 139.9, for the non-indigent. The standard deviations were 17.4 and 16.9, respectively.

Scholastic achievement in this investigation was measured by calculating honor-point averages based on teachers' marks. The marking system used in the Detroit intermediate schools is a letter rating of A (superior), B (above average), C (average), D (below average), and E (failure). For determining honor-point averages, a mark of A was given four honor points; B, three; C, two; D, one; and E, none. The letter marks in terms of honor points were multiplied by the appropriate number of credit hours, the total number of honor points being thus secured. The total number of honor points was divided by the total number of credit hours, the result being the honor-point average.

Honor-point averages for mathematics, English, social science, general science, and health were computed for each of the six hundred pupils. Furthermore, the total honor-point average was found for each pupil for all the subjects combined.

RESULTS

The means and the standard deviations of the honor-point averages are shown in Table 1. In English the mean honor-point averages of the indigent and the non-indigent pupils indicate that the two groups are practically the same in school achievement. The difference in achievement is only .03 of an honor point. The variability in achievement is nearly the same for both groups, as evidenced by the standard deviations of .70 and .65. The difference between the means when divided by the standard error of the difference yields .60. It may be concluded, therefore, that there are seventy-three chances in a hundred that the true difference between the means is greater than zero in favor of the indigent pupils. There are, of course, twenty-seven chances in a hundred that the true difference between the means is greater than zero in favor of the non-indigent groups.

It is obvious that the difference in achievement in English is not

statistically nor practically significant. There is no evidence that indigency has caused emotional disturbances that inhibit school achievement. Many persons believe that aid given to pupils causes an attitude of indifference. This study has failed to reveal any tendency on the part of pupils who receive aid to slump in scholastic effort or achievement. The data suggest that indigent pupils who receive aid work harder and achieve slightly better than similar non-

TABLE 1

COMPARISON OF SCHOLASTIC SUCCESS, SCHOOL ATTENDANCE, AND AMOUNT OF TARDINESS OF 300 PAIRS OF INDIGENT AND NON-INDIGENT PUPILS

ITEM COMPARED	INDIGENT PUPILS		NON-INDIGENT PUPILS		DIFFERENCE BETWEEN MEANS IN FAVOR OF INDIGENT GROUP	STANDARD ERROR OF DIFFERENCE	DIFF. σ DIFF.	NUMBER OF CHANCES IN 100 THAT TRUE DIFFERENCE IS GREATER THAN ZERO
	Mean	Standard Deviation	Mean	Standard Deviation				
Number of honor points:								
English.....	2.37	0.70	2.34	0.65	0.03	0.05	0.60	73
General science....	2.58	.79	2.40	.71	.18	.06	3.00	100
Health.....	2.36	.86	2.46	.80	-.10	.06	1.67	95
Mathematics.....	2.21	.75	2.16	.75	.05	.05	1.00	84
Social science.....	2.49	0.76	2.43	0.74	0.06	0.05	1.20	89
All subjects.....	2.35	0.58	2.33	0.55	0.02	0.04	0.50	69
Number of days of attendance.....	557.43	38.60	563.83	32.20	-6.40	2.90	2.21	99
Number of times tardy	7.70	6.56	6.32	5.94	1.38	0.51	2.71	100

indigent pupils. It is possible that indigency is a factor motivating pupils to do better scholastic work; these pupils may wish to make the best of their educational opportunities so that some day they will be in better economic conditions.

The comparisons of the two groups in mathematics, in social science, and in "all subjects" show the same results as those found in the case of English. In general science the indigent pupils show a superiority that is statistically significant—an advantage that cannot be explained on the basis of chance or sampling. In the health course the non-indigent pupils have a slight advantage.

✓Data on attendance and tardiness were collected for both groups. The length of a school year in Detroit is two hundred days; therefore, perfect attendance in Grades VII, VIII, and IX would be six hundred days. Table 1 indicates that the non-indigent group has a better record in attendance. The greater amount of attendance on the part of the non-indigent group apparently has not produced better scholastic success as measured by teachers' marks because in

TABLE 2
OCCUPATIONAL CLASSIFICATION OF FATHERS OF 300 PAIRS OF
INDIGENT AND NON-INDIGENT PUPILS

OCCUPATIONAL CLASSIFICATION	FATHERS OF INDI- GENT PUPILS		FATHERS OF NON- INDIGENT PUPILS		DIFFERENCE IN PERCENT- AGES IN FA- VOR OF NON- INDIGENT PUPILS
	Number	Per Cent	Number	Per Cent	
I. Professional and kindred workers.....	1	0.3	5	1.7	1.4
II. Salespersons.....	5	1.7	12	4.0	2.3
III. Clerical workers.....	6	2.0	12	4.0	2.0
IV. Service workers.....	16	5.3	28	9.3	4.0
V. Craftsmen (skilled workers).....	36	12.0	29	9.7	- 2.3
VI. Production workers (semi- skilled).....	79	26.3	112	37.3	11.0
VII. Physical labor workers (un- skilled).....	70	23.3	57	19.0	- 4.3
VIII. Unassigned.....	87	29.0	45	15.0	-14.0
Total.....	300	99.9	300	100.0

five out of six comparisons the indigent group is somewhat superior in achievement to the non-indigent group.

Table 1 also demonstrates that the incidence of tardiness is greater for the indigent group. It is not likely that amount of tardiness has had a detrimental influence on achievement because the indigent group is slightly superior to the non-indigent group in scholastic performance as measured by teachers' marks.

OCCUPATIONS OF FATHERS

The occupations of the fathers were grouped into eight categories according to the occupational classification of the United States De-

partment of Labor.¹ These data are presented in Table 2 and demonstrate that in two instances the differences in percentages are significant. For Group VI the difference in percentages is 11, and for Group VIII the difference in percentages is 14. These differences are statistically significant and indicate superior occupational status for the fathers of the non-indigent pupils. The mean occupational classification for the indigent group is 6.44; for the non-indigent group, 5.84. The difference of 0.60 between the means is statistically significant. This finding is important, for the indigent pupils have a slight advantage in scholarship even though they come from homes of lower occupational status. Poorer economic conditions have not hampered the academic success of the indigent pupils.

SUMMARY AND CONCLUSION

This study has attempted to answer the question: What has been the effect of indigency on the achievement of pupils in an intermediate school? Three hundred indigent pupils were matched with three hundred non-indigent pupils according to intelligence, age, sex, and curriculum. Teachers' marks were used as the measure of achievement. For each pupil the honor-point averages for English, general science, health, mathematics, social science, and all subjects combined were calculated. In English, mathematics, social science, and "all subjects," the averages of the indigent group are slightly superior to those of the non-indigent group. In general science the indigent group displays a statistically significant superiority over the non-indigent group. In the course in health the non-indigent group is somewhat superior to the indigent group. The non-indigent group has a better record from the standpoint of attendance. The difference between the means for number of days in attendance for the two groups closely approaches statistical significance. Likewise, the incidence of tardiness is greater in the indigent group.

The occupations of the fathers of the two groups were classified into eight categories. In two instances significant differences in percentages are observed in the occupational classifications of the fa-

¹ *Occupational Titles and Codes for Use in Public Employment Offices*, Vol. I. United States Department of Labor, Employment Office Manual, Sec. B. Washington: Government Printing Office, July, 1936.

thers. The difference in mean occupational status of the fathers is statistically significant, in favor of the non-indigent pupils.

✓ The major finding of this investigation is that five of the comparisons in achievement fail to reveal significant differences. In one instance a difference is statistically significant in favor of the indigent group. It should be reiterated that five of the six comparisons in achievement are in favor of the indigent group even though, from the standpoints of attendance, punctuality, and occupational status of fathers, the non-indigent group has the advantage.

It may be assumed that the pupils in the indigent group during the time spent in the Nolan Intermediate School received sufficient aid to assist them to make a record in achievement comparable with, or superior to, that of the non-indigent pupils. There is a possibility that in the non-indigent group there were some pupils who needed help from the school, were deserving of it, and yet were too proud to ask for assistance in the purchase of books and other supplies.

There may be a tendency on the part of some teachers to be lenient with pupils classed as indigents and thereby lower the standards. The data presented in this investigation indicate that teachers should demand the same standards of work from indigent as from non-indigent pupils.

EFFECTIVE NEWSPAPER PUBLICITY FOR THE HIGH SCHOOL

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THE high schools of America are not obtaining the best in newspaper publicity. Major athletic events and outstanding functions such as school plays and graduations, which have news value because of their great interest to large sections of the general public, are usually well covered, but occurrences of lesser significance are often not reported at all. Frequently, also, coverage is complete as far as it goes, but it does not bring out the underlying educational purposes and techniques. These failures are, in a large measure, responsible for many a community's lukewarm appreciation of its schools.

Because of the expense involved, the press cannot be justly blamed for not covering all the events which the school would like to have publicized; and, because of the differences in training and in point of view, the reporters cannot be expected to set forth in just the right way the significance of school events as visualized by the educator.

The principal who wishes to obtain effective publicity for his school can solve the problem by appointing a member of the faculty as director of publicity, whose job it is to cover for the local paper all the events that would otherwise not be reported. Since most editors welcome co-operation of this sort, the problem of adequate publicity is at once solved, both quantitatively and qualitatively. The director of publicity will cover all events of real news value, and he will report the stories in the way in which the school wants and deserves to have them told.

Obviously not every teacher possesses the qualifications needed for this position. The director of publicity must be able to write in a pointed, vivid, and compact style, neither too formal nor too "news-papery." He has a nose for news, yet he recognizes the value of re-

straint. If, for instance, there is an accident at school (such things happen and, whether the school wishes it or not, usually receive newspaper publicity), he will avoid sensationalism, while another reporter probably would not. The director must be able to meet people on their own level and to see their points of view. He must be able to work at high speed under pressure, for press time is often staring him in the face. He realizes that he must be accurate and authoritative, that in molding opinion he has great responsibilities to both the school and the public. The principal, then, should exercise care and foresight in the selection of a teacher for this post.

The first problem facing the director is that of defining clearly the scope and the limitations of his work. In most cases it is wise for him to do nothing with athletics. These activities are usually well covered, with the possible exception of the minor sports and inter-class games. However, he may well serve as an adviser to the coaches, who are in a position to influence for the better most publicity which sports receive. In the case of other school activities, the press will generally expect to continue giving coverage to all events of outstanding public interest. With reference to the advance publicity necessary for such an activity as the school play, it is advisable, because of the pressure of other work, for the director to let the dramatic club appoint its own committee for the task. To be sure of efficient co-ordination, however, the director should give final approval to such publicity and should release it to the press. In short, he assumes the position, not of an advance publicity agent promoting the sale of tickets, but of a general news-reporter, whose aim is to inform the community of the many worth-while activities going on within the school during the yearly routine.

Even with these limitations, the scope of the work is broad. Club news, assemblies, class notes, items on the successes of recent graduates, classroom projects, field trips, official school procedures, such as matters connected with parents' night or report cards and warning slips—all these are appropriate subjects for the publicity director to cover. The articles will vary in length from notations in the brief news items to full column stories, which will occasionally be enriched with photographs.

The multiplicity of the work involves frequent and personal con-

tact with the officials of the press, who under almost all circumstances will give their hearty co-operation. The publicity director must remember, however, that space is valuable and that time is important, and he must realize that the press is a business enterprise operated for the benefit of the city, not the school. He cannot demand a certain amount of space or a definite page location. If his story is cut, there is a good reason. If an article is held over for a day, he must be glad that it is finally printed. If his copy is late or is poorly written, the responsibility for what happens to it is his. The press is doing its part by giving the space that it can afford, and the director can reasonably ask no more.

Another problem is planning when and how to write the stories. Since often, to be most effective, they must appear on a particular day, the director's schedule should give him a free period about the middle of the morning. At that time a capable stenographic pupil, assigned to him as his personal secretary, will take down the story as he dictates it and have it typewritten for him to proofread in time to beat the dead line. Incidentally, this method provides invaluable experience for a member of the office-practice class.

For articles of an expository nature, such as an account of the methods of the school bank, which can be planned ahead of time because their value does not depend on appearance on a given date, more leisurely handling is preferable. In the preparation of some copy of this type, the director may even establish a sort of press bureau with a small staff of pupil assistants. Here is more valuable experience for qualified pupils, as well as an easing of the director's burden. It is axiomatic, however, that nothing should ever reach the press without having first passed the careful scrutiny of the director.

Adoption of the program and procedure outlined here cannot be justified unless it produces results worthy of the time and the effort spent in doing the work. The writer's experience in his own community, a reasonably typical New England manufacturing city of thirty thousand people, has proved conclusively that several highly desirable benefits result from the judicious use of the plan.

The faculty is both co-operative and appreciative, especially those members who serve as advisers of school organizations. They

solicit publicity for their activities and take pride in the attention that their efforts deservedly win. Unanimously they feel that the functions of the school become more effective as they are better understood by the general public, as well as the parents.

From casual remarks and occasionally from pointed comment, it is apparent that both the general public and the parents like to be able to read about the things which take place day by day within the school. People are interested in their schools, and this method of coverage accurately describes to them functions of which they have often never heard or of which they have formed strange misconceptions. With the full story spread out clearly before them, they gain a new perspective, which leads to a greater appreciation of teachers and of modern educational aims and methods. Consequently the school is likely to get from the parents and public a support which does much to develop educational efficiency.

Finally, there is a direct benefit accruing to the pupils. As has been pointed out, some of them profit by actual participation in the mechanics of turning out the copy. Their number is, however, small. The vast majority of pupils, whose only contact with the publicity system is that of newspaper readers, are vitally interested in the publicity. In reading an article (note, incidentally, this new and valuable incentive to the reading of newspapers), they are likely to see in print the name of a friend, certainly of an acquaintance. That is exciting. They may even see their own names, an event even more stimulating which has for them a significance not often measured accurately by a mature person. To recapture some of their enthusiasm, the reader has only to recall his excitement at first seeing his own name in print.

Growing out of that interest is an incentive which should not be underestimated. The pupil has a new urge toward a more active participation in school activities so that he may attain the perfectly human satisfaction of seeing his name in the paper. He can reach his goal only by methods which educators value highly and which they labor, often vainly, to impress upon him. He acquires a new conception of the importance of praiseworthy leadership in school life and makes a more concentrated drive to develop his potential abilities. He becomes a better citizen of the school. His morale,

and consequently that of the entire student body, is raised several notches.

It would not be just to the pupil to imply that his efforts at self-improvement are based solely on egoism. There is still another motivating force behind his ambition. Too often he feels that school is merely an unimportant prelude to important living. The steady stream of publicity enables him to see that school is significant in itself, for otherwise the press would not publish its doings. Once cognizant of this fact, he finds it only a step, and an easy one, to a new estimate of his own worth and a new diagnosis of his proper place in the busy and important life of which he is a part.

The appointment of a capable director of publicity, then, is a forward step of major importance. Giving school activities their rightful place in the sun raises the morale of both teachers and pupils. Keeping the community constantly and accurately informed about the ramified functionings of the school does much to gain for education a wholehearted public support, without which the school is indeed sorely handicapped. These are goals of paramount significance to all who are interested in promoting the cause of education.

SELECTED REFERENCES ON SECONDARY-SCHOOL INSTRUCTION

III. THE SUBJECT FIELDS—Continued

LEONARD V. KOOS AND COLLABORATORS

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THIS third and final list of selected references on secondary-school instruction to appear in the current volume of the *School Review* contains items dealing with the subject fields not represented in the list published in the February issue, namely, industrial and vocational arts, agriculture, home economics, business education, music, art, and physical education. The present list, like the first and the second, follows a definition of "instruction" which includes its three main aspects of (1) curriculum, (2) methods of teaching and study and supervision, and (3) measurement.

INDUSTRIAL AND VOCATIONAL ARTS

HOMER J. SMITH

University of Minnesota

200. BROWNE, MARION BURMASTER. "What Industrial Arts Has Meant to Me," *Industrial Education Magazine*, XL (September, 1938), 189-93.

The personal and inspiring story of how a teacher, prepared in other subjects, has developed appreciation and enjoyment through industrial arts. Her experiences have been broad as to materials and processes and have been well correlated with more general knowledge and with everyday work and leisure activities.

201. CUSHMAN, FRANK. *Foremanship and Supervision*. New York: John Wiley & Sons, 1938 (revised). Pp. xxii+286.

A revised edition of extremely practical nature. Objectives and procedures of the conference method of training are clearly explained. Contains a chapter on "Fundamental Principles of Good Supervision."

202. FLEMING, JOSEPH W. "Predicting Trade-School Success," *Industrial Arts and Vocational Education*, XXVII (October, November, and December, 1938), 315-18, 365-67, 422-26.

A series not completed at the time of compiling this list. Worthy to be followed by industrial teachers, school administrators, and guidance counselors. Sta-

tistical data on the interrelations of entering age, grade completed, intelligence, achievement in shopwork, and persistence in attendance in trade school.

203. *Guide for Vocational Education*. Washington: American Federation of Labor, 1938. Pp. 14.

Sets forth the beliefs and the policies of the federation as to vocational preparation and up-grading and suggests how a local or a state program may be evaluated. This bulletin should be read widely, especially by school boards, administrators, and vocational instructors.

204. KLEHM, WALTER ALLEN. "Present Needs and Procedures for the Determination of Equipment Lists," *Industrial Education Magazine*, XL (March, 1938), 62-69; "A Plan for Determining Equipment Requirements in Industrial Arts Based upon the Teaching Objectives," — (September, 1938), 194-203; "The Use of the Proposed Procedure for the Determination of Equipment Lists," — (November, 1938), 249-52.

This series deals with current practices, the need for objective study, comparison of school shops and industries, standardized lists, etc. Presents a procedure involving units of instruction, needed tools, frequency with which tools are used, time requirements of processes, and tool indexes.

205. LEE, EDWIN A. (Editor). *Objectives and Problems of Vocational Education*. New York: McGraw-Hill Book Co., Inc., 1938. Pp. x+476.

A revised and enlarged edition of the 1928 volume, with several changes in authorships and with extension to include the George-Deen law of 1936. History, purposes and responsibility, policies, trends, employer attitude, labor attitude, and a forward look are presented, together with chapters concerning practices in agriculture, commerce, home economics, industrial arts, vocational guidance, part-time education, trade and industrial education, rehabilitation, and teacher training.

206. MCKINNEY, JAMES. "Distinctive Elements of the Industrial-Arts Program," *Industrial Arts and Vocational Education*, XXVII (November, 1938), 380-81.

A brief (because clearly outlined and itemized) answer to the question: "What can industrial arts do for a boy that cannot be done as well by some other subject?"

207. MICHEELS, WILLIAM J. "An Industrial-Arts Consumer Unit," *Industrial Arts and Vocational Education*, XXVII (October, 1938), 324-29.

A detailed presentation of a well-conceived and carefully developed unit on furniture.

208. PROFFITT, MARIS M. "Industrial Arts an Essential in the Curriculum of American Schools," *Industrial Education Magazine*, XL (November, 1938), 231-34.

An interesting résumé of social changes, enrolments in high schools, and enrolments in certain high-school subjects through many years. A pattern for the evaluation of the high-school curriculum. Industrial-arts work is termed "essential" chiefly by reason of the dominance of industry in our civilization.

209. REEVES, FLOYD W. "Federal Relations to Vocational Education," *American Vocational Association Journal and News Bulletin*, XIII (May, 1938), 91-96, 98.

A gentleman whose contact with it has been close and whose attitude has been studious reviews and criticizes vocational education under federal aid. He quotes from the report of the President's Advisory Committee on Education, of which he was chairman. Gives definition, importance, program, services, control, and recommendations for vocational education with federal aid.

210. SHUMAN, JOHN T. "Specific Suggestions for Teaching Industrial Students," *Industrial Arts and Vocational Education*, XXVII (October, 1938), 322-23.

Fourteen points of practical assistance to any industrial teacher which are worthy of consideration by a principal or a supervisor as well.

211. SMITH, HOMER JOHN. "Correlation or Integration, Which?" *Industrial Education Magazine*, XL (September, 1938), 169-73.

An editorial which differentiates correlation and integration and warns of "the threat of our lost identity" in industrial arts under the latter concept of school administration, curriculum-building, and classroom procedure.

212. STARBUCK, BETTY W. "A List of Trade and Industrial Periodicals." United States Office of Education, Vocational Division, Misc. 2127, September, 1938. Pp. 31 (mimeographed).

A total of 460 journals are listed under 70 occupational classifications. Each entry affords full title, name and address of publisher, frequency of issue, and price. Not limited to "trades" in a narrow sense. Useful to librarians, guidance workers, and teachers of industrial courses and the "practical subjects" generally.

213. STRUCK, F. THEODORE. *Creative Teaching—Industrial Arts and Vocational Education*. New York: John Wiley & Sons, 1938. Pp. xvi+624.

A work of high value for the general teacher, as well as the "practical-arts" teacher and administrator, because of its sound philosophy, breadth, and concreteness.

214. WESTMORELAND, ED. P. "Attitudes and Ideals Developed by Industrial Arts," *Industrial Arts and Vocational Education*, XXVII (November, 1938), 368-71.

A principal reports an investigation and offers concrete illustrations of how the careful selection of projects, teaching methods, and management plans may enhance the character-building outcomes which are possible through shopwork.

215. WILLOUGHBY, GEORGE A. "Shop Management and Maintenance," *Industrial Arts and Vocational Education*, XXVII (October, 1938), 323-24.
A brief and useful statement concerning the "clean-up" period and the general care of a school shop from the standpoint of orderliness.

AGRICULTURE

T. E. SEXAUER

Iowa State College of Agriculture and Mechanic Arts, Ames, Iowa

216. ADERHOLD, O. C., and EKSTROM, G. F. "A Suggested Technique for Constructing Tests in Vocational Agriculture," *Agricultural Education Magazine*, X (January, 1938), 136-38.
Suggests a plan for constructing tests in vocational agriculture.
217. ALLEN, NORVELL C. "Motivating Interest in Repair Work on the Farm," *Agricultural Education Magazine*, XI (July, 1938), 12.
Suggestions for holding interest in repair-work and also for financing the shop.
218. ANDERSON, C. S. "Timely Suggestions to Teachers of Agriculture," *Agricultural Education Magazine*, X (June, 1938), 225.
A trainer of teachers makes suggestions for improving the teaching program.
219. AURINGER, PAUL. "Evening Course in Farm Law," *Agricultural Education Magazine*, X (May, 1938), 211-12.
Presents an outline and the procedure for a course in farm law for evening school.
220. AUSTIN, E. L. "Visual Aids for Teachers of Vocational Agriculture," *Agricultural Education Magazine*, X (April, 1938), 186-87.
A discussion of the use of field trips, models, charts and graphs, still pictures, and motion pictures in the teaching procedure.
221. CLINE, RUSSELL W. "Why Use Enterprise Budgets?" *Agricultural Education Magazine*, XI (October, 1938), 68-69.
Explains the advantages of using budgets in planning supervised-practice projects.
222. DICKERSON, RUSSELL B. "Organization and Development of the Program of Instruction for Out-of-School Farm Youth," *Agricultural Education Magazine*, X (February, 1938), 153-54.
A thorough treatment of one man's experience in organizing and developing a part-time class.
223. FADELY, S. H. "Evening Class as a Means of Accomplishing a Community Program," *Agricultural Education Magazine*, XI (October, 1938), 70.
How an evening school may contribute to community planning for a balanced program of agriculture.

224. FIELD, A. M. "Home Economics Instruction for Boys," *Agricultural Education Magazine*, X (May, 1938), 206-7.
A discussion of the feasibility of such a course, with suggestions for units of instruction.
225. GIBSON, H. H. "A Requirement for Effective Project Supervision—The Determination of What Proved and Up-to-Date Practices Are To Be Followed," *Agricultural Education Magazine*, X (May, 1938), 208-9, 218.
A discussion of a plan of supervised practice that serves the purpose of learning by doing.
226. GREEN, JESSE C. "Stimulating Interest in a Part-Time Class," *Agricultural Education Magazine*, XI (August, 1938), 31.
Suggestions for recruiting and conducting a class of part-time pupils.
227. GROVE, W. J. "Planning Home Practice Programs," *Agricultural Education Magazine*, XI (August, 1938), 28.
A plan for inducting boys into a suitable supervised-practice program.
228. HOOPES, L. B. "Factors Affecting Establishment in Farming," *Agricultural Education Magazine*, X (April, 1938), 194-95.
A teacher's study of one hundred of his former pupils.
229. HORST, SAMUEL L. "Film Strips in Teaching Agriculture," *Agricultural Education Magazine*, XI (September, 1938), 45-57.
A discussion of the use of film strips in teaching. Gives suggestions on what types of projectors and screen to employ and how to make efficient use of films.
230. HOWARD, CARL G. "Checking the Farm Mechanics Organization," *Agricultural Education Magazine*, XI (August, 1938), 33, 37-38.
Describes steps in organizing a course of study in farm mechanics.
231. HULSLANDER, S. C. "Raising Standards of Supervised Farm Practice," *Agricultural Education Magazine*, X (April, 1938), 188-89.
A treatise on how to increase the educational value of supervised-practice projects.
232. PEASE, WILBUR F. "A Plan for Fourth Year Agriculture," *Agricultural Education Magazine*, X (March, 1938), 166.
One instructor's plan for the fourth year. He does not limit the work to farm management but includes a unit on social obligations—support of religious, social, civic, educational, and agricultural organizations of the community.
233. PERKY, J. B. "A Promotional Program for Vocational Agriculture," *Agricultural Education Magazine*, XI (September, 1938), 46.
A list of devices which may be used in obtaining publicity for the agriculture department.
234. PETERSON, M. J. "The Teacher of Agriculture and Community Services," *Agricultural Education Magazine*, XI (August, 1938), 34.

Outlines advantages and disadvantages of the teacher's rendering individual service to farmers of the community.

235. POLLOM, LESTER B. "Project Plans and Their Relation to Instruction," *Agricultural Education Magazine*, XI (September, 1938), 48-49, 57-58.
A discussion of projects as teaching tools and the use of plans for improvement of effectiveness of teaching.
236. RULIFSON, RALPH E. "Evening School Council," *Agricultural Education Magazine*, X (May, 1938), 210.
Describes the selection and the use of a council in connection with the farmers' evening school.
237. SCHRINER, T. R. "Our Problem with Part-Time Students," *Agricultural Education Magazine*, X (February, 1938), 150-51.
How one instructor approached the problem of getting part-time students established in farming for themselves.
238. WASHINGTON, P. I. "Securing Parent Co-operation in Supervised Practice Work," *Agricultural Education Magazine*, XI (July, 1938), 9, 18.
This instructor obtained the co-operation of parents by extensive visits to the farms.
239. WESCOAT, WENDELL M. "Young Farmer Education," *Agricultural Education Magazine*, X (March, 1938), 172.
The experience of one teacher in organizing and conducting part-time classes.

HOME ECONOMICS^{*}

RUTH TOWNSEND LEHMAN
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240. BRADY, DOROTHY. "A Realistic Approach to Teaching Clothing Expenditures," *Journal of Home Economics*, XXX (November, 1938), 612-16.
Presents some data, secured through a co-operative study of the United States Bureaus of Home Economics and Labor Statistics, on actual family expenditures for clothing. Shows how these data may be used effectively by the classroom teacher.
241. BRIDGMAN, RALPH P. "Human Relationships in Home Economics Teaching," *Forecast*, LIV (September, 1938), 293, 312, 330, 332.
Discusses five questions which each teacher should ask herself before deciding that she is ready to help pupils in their problems of human relationships.

^{*} See also Items 649 (Reeves) and 653 (Strang, Curtiss, and Overs) in the list of selected references appearing in the November, 1938, number of the *Elementary School Journal* and Item 22 (Frederick and Farquhar) in the January, 1939, number of the *School Review*.

242. "Curriculum Development in Education for Home and Family Living: Purposes and Procedures." United States Office of Education, Vocational Division, Misc. 2087, June, 1938. Pp. vi+128 (mimeographed).
The most comprehensive treatment of the development of the home-economics curriculum which has appeared. Discusses in detail purposes in curriculum work, some outstanding questions to consider in making plans, the details of procedures used in several centers, and criteria for evaluating progress in curriculum development. An annotated bibliography is included. The bulletin is useful to teachers, administrators, and research workers.
243. DAVIS-DUBOIS, RACHEL. "The Role of Home Economics in Intercultural Education," *Journal of Home Economics*, XXX (March, 1938), 145-49.
Reports programs of intercultural and interracial education which were planned to co-ordinate school and community, as well as activities within subject areas in the school. These programs were developed in some fifty junior and senior high schools in the metropolitan areas of four large cities under the guidance of the Service Bureau for Education in Human Relations, later the Commission on Intercultural Education of the Progressive Education Association.
244. ENTORF, MARK L. "Ends and Means in Teaching Family Relationships," *Parent Education*, IV (April, 1938), 196-99, 239.
A most challenging article for any person attempting to teach family relationships.
245. FAIRBANKS, ALIDA. "Recent Developments in Consumer Education in the Secondary Schools," *Journal of Home Economics*, XXX (October, 1938), 557.
A brief statement of trends in objectives, problems, and activities.
246. GOODYKOONTZ, BESS. "Teacher Growth and Supervision," *Journal of Home Economics*, XXX (September, 1938), 441-44.
Although written from the standpoint of the supervisor, this article suggests much to the classroom teacher concerning the place of home economics in the total curriculum of the school and concerning the teacher's own professional growth.
247. HAAS, KENNETH B. "What High School Students Know about Buying and Money Management," *Journal of Home Economics*, XXX (November, 1938), 630-32.
Reports a survey of 341 twelfth-grade boy and girl members of commercial or home-economics classes in one New Jersey and two New York City high schools. Points on which information was secured included: extent of young people's spending, their understanding of clothing and food values, how pupils thought they might improve their buying ability, and opinions concerning instalment buying. Some of the findings are of value.

248. JERVEY, MYRA. "Personality Development through Clothes," *Practical Home Economics*, XV (December, 1937), 440-41, 462-63.
Describes the work done at Stephens College through "clinics" in grooming and clothing. The plan has possibilities for high schools.
249. KELIHER, ALICE V., and BRIDGMAN, RALPH P. "Family Relationships in the Secondary Curriculum: A Preliminary Statement," *Parent Education*, IV (April, 1938), 187-95.
Summarizes the basic problems of young people and emphasizes the importance of the teaching of family relationships. The authors recognize what is already being done and make suggestions on how the work may be integrated into the whole secondary-school curriculum.
250. LEWIS, DORA S. "Newer Developments in Home Economics Education in Seattle," *American Vocational Association Journal and News Bulletin*, XIII (May, 1938), 78-80.
Describes an extensive program of curriculum study in the Seattle schools. Reports also the work of some interesting classes which have been organized to meet the varied needs of groups of out-of-school youths.
251. MCGINNIS, ESTHER. "Youth and Education for Family Life," *Parent Education*, IV (December, 1937), 80-85.
Reviews a number of books for adults and high-school pupils with respect to their contribution to the newer emphasis on family-life education at the secondary-school level.
252. "Materials Prepared by Participants in the Home Economics Group of the Progressive Education Association Summer Workshop." Columbus, Ohio: Progressive Education Association, Evaluation in the Eight-Year Study, Ohio State University, 1937. Pp. ii+147 (mimeographed).
A full report dealing with the contribution of home economics to general education, curriculum projects, and instruments of evaluation. Sample tests are included. This report should be of value to the classroom teacher.
253. NYSWANDER, DOROTHY B. "The Part of Home Economics in the School Health Program," *Journal of Home Economics*, XXX (October, 1938), 537-40.
Presents a plan for co-operative work in health education within the local community and between national organizations, showing the place of the home economist in each.
254. OATMAN, ILMA BADGLEY. "Home Problems in the Core Curriculum," *University High School Journal*, XVI (December, 1937), 72-81.
Describes in some detail a course in home problems which was developed for twelfth-grade girls.
255. "Report of the Committee on Child Development and Family Relationships," "Twentieth Annual Central Regional Conference: Home Eco-

nomics Education," pp. 16-35. United States Office of Education, Vocational Division, Misc. 2062, May, 1938.

Gives a comprehensive list of objectives and suggests learning experiences for the attaining of these objectives. Of practical value to the classroom teacher.

256. SCHMIDT, LILLIAN. "The Frontenac Integrated Homemaking Program," *Practical Home Economics*, XVI (March, 1938), 100-101, 130.

Describes the organization of a course to provide for normal use of all rooms of a homemaking cottage. An application of the Herrington plan for an "integrated program" in homemaking.

257. SHULTZ, HAZEL. "Household Employment as a Problem of Vocational Education," *Practical Home Economics*, XVI (April, 1938), 155-56.

Gives practical suggestions for a course in training for household employment, based on the experiences of the Household Workers Training Program which has been administered for the past two years by the Works Progress Administration.

258. SPAFFORD, IVOL. "Education for Home Living in the Secondary Schools Today," *Journal of Home Economics*, XXX (February, 1938), 77-82.

Reports some experimental programs in education for home living which were found in a study of secondary schools made for the General Education Board. Points out the contributions which home economics has to make to the program.

259. STRAWN, ALICE. "How a Vocational Agriculture and a Vocational Homemaking Department Co-operate," *American Vocational Association Journal and News Bulletin*, XIII (May, 1938), 97-98.

Describes a three-year program developed co-operatively by teachers of agriculture and homemaking in the Quail (Texas) High School.

260. "Suggestive Teaching Procedures in Certain Aspects of Housing in Home Economics Programs." United States Office of Education, Vocational Division, Misc. 2107, 1938.

This miscellany is the result of the combined efforts of a summer-school group in North Carolina. It lists various problems of housing, such as securing facilities for privacy and a satisfying place to study, and suggests procedures which may be followed in meeting these problems.

261. THOMAS, JOHN B. "Consumer Buying in California Secondary Schools," *School Review*, XLVI (March, 1938), 191-95.

Presents a picture of the status of consumer education in 196 schools in California and shows the present place of home arts in this program.

262. WOODWARD, MARION B. "Teaching Housing in the Home Economics Program," *Practical Home Economics*, XVI (April, 1938), 149, 174-75.

Gives many practical suggestions as to content and method of teaching housing at the secondary-school level.

BUSINESS EDUCATION¹

FREDERICK J. WEERSING

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263. BROWN, QUINCY, and MILES, LILLIAN E. "Two Tested Work-and-Learn Plans for Business Students," *Business Education World*, XVIII (June, 1938), 839-40.

A description of the San Bernardino, California, plan of co-operative training in business for high-school Seniors, with suggested prerequisites for the successful operation of such a plan.

264. "Closing Arguments regarding the Scope of Business Education in Secondary Schools, Junior and Senior Colleges," *National Business Education Quarterly*, VI (March, 1938), 5-35.

Concludes the discussion begun in the December issue (see Item 273 in this list). A symposium of the following articles: "How Much Business Education Should Be Undertaken in Secondary Schools?" by Jessie Graham; "Business Education on the Junior College Level," by C. D. Cocanower; "Purpose and Content of Collegiate Education for Business," by Charles C. Fichtner; "Secretarial Training on the Four-Year College Level," by Clyde W. Humphrey; "The Requirement for Certification of Teachers of Business Education," by Vernal H. Carmichael; and "Distributive Education," by B. Frank Kyker.

265. *Factors of Learning and Teaching Techniques in Business Education Subjects*. Fourth Yearbook of the National Commercial Teachers Federation. Detroit, Michigan: National Commercial Teachers Federation (Office of Editor, Northern High School), 1938. Pp. x+320.

Parts I and II include chapters by authorities on factors of learning in business education and standards of achievement and goals, as formulated from the viewpoint of the teacher, the businessman, the school administrator, and the psychologist. Part III is written by classroom teachers and specialists and deals with improved teaching techniques in business education. Part IV gives a résumé of the part-time co-operative plan, together with successful plans for using it in selling and in office jobs.

266. GIVEN, JOHN N. "The Duties, Responsibilities, and Activities of City Directors and Supervisors of Business Education in Some American Cities," *Business Education World*, XIX (September, 1938), 34-36.

A tabulation of questionnaire responses from twenty-seven city directors and supervisors of commercial education in the United States.

267. HAIR, LOUISE, and WALLACE, IDA. "A Curriculum Study of Commercial Education," *Journal of Business Education*, XIII (May, 1938), 9-10.

¹ Item 205 in this list contains a chapter by Frederick G. Nichols on "Commercial Education: Principles, Practices, Trends," which presents one of the best descriptions obtainable of the genesis and the development of business education in the United States.

A condensed report of curriculum practices in business education in thirty-seven cities of the United States, with an interpretation of needs.

268. HARAP, HENRY. "Consumer Education in the Business Curriculum," *Business Education World*, XVIII (April, 1938), 613-20.

A highly informative summary of the consumer-education movement and of the organizations and publications which are promoting it. Gives selected references.

269. KING, ALLEN Y. "Duplication between Commercial Subjects and the Social Studies," *Social Education*, II (May, 1938), 323-24.

A plea for more co-operation and more unified planning between the two departments.

270. *Measuring for Vocational Ability in the Field of Business Education*. Tenth Yearbook of the Eastern Commercial Teachers' Association. Philadelphia: Eastern Commercial Teachers' Association (1200 Walnut Street), 1937. Pp. xx+442.

Part I presents the report of a joint committee on office tests and includes copies of the tests, the results of the testing program, and the recommendations of the committee. Part II includes papers presented at the annual conference on the theme of the convention program. Part III includes miscellaneous papers and a series of questions and answers relating to various problems in vocational and social business education.

271. PRICE, RAY G. "Integration in Business Education," *Business Education World*, XVIII (May and June, 1938), 739-40, 831-33.

Two articles which raise questions of fundamental importance to business education. The author submits possible plans for securing proper integration and lists desirable and undesirable features of each.

272. TONNE, HERBERT A. "A Selected Bibliography on Social-Business Education," *Journal of Business Education*, XIII (January, 1938), 25.

References on general aspects and varying points of view, chosen to reveal recent trends.

273. "What Constitutes an Adequate Education for Business?" *National Business Education Quarterly*, VI (December, 1937), 5-41.

A symposium on "business education on the secondary-school, junior-college, and four-year college levels," designed to assist in the redefinition of the aims and the scope of instruction in this field.

MUSIC

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274. BEATTIE, JOHN W., MCCONATHY, OSBOURNE, and MORGAN, RUSSELL V. *Music in the Junior High School*. New York: Silver Burdett Co., 1938 (revised). Pp. vi+258.

A revision of the book first published in 1930. Takes up the history of the junior high school and its place in the development and the training of the adolescent, the present status of music in this division of instruction, and the course of study and its administration. A new feature is a list of questions for thought and discussion at the close of each chapter. The bibliography has been enlarged and brought up to date.

275. COYE, NINA B. "Sight Singing and Theory in the Junior High School," *Music Educators Journal*, XXV (October, 1938), 32-33.

Discusses problems in theoretical work and means of solving them. The article points out that teachers must have the right attitude and recognize the right values in such instruction.

276. CRAWFORD, JOHN A., and RUDDICK, J. LEON. "A Pageant of Marching Bands," *Music Educators Journal*, XXIV (March, 1938), 41-43, 46.

A description of the maneuvers of massed bands as worked out in Cleveland, Ohio.

277. DEVLIN, W. MADISON. "Music Trends in Senior High Schools," *Music Educators Journal*, XXV (December, 1938), 33.

A brief report of a survey in music in forty-seven cities.

278. GEHRKENS, KARL W. (Editor). *Volume of Proceedings of the Music Teachers National Association*, Thirty-second Series. Oberlin, Ohio: Music Teachers National Association, 1938. Pp. 426.

The book comprises papers and addresses given at the Pittsburgh meeting in 1937. Among those pertaining particularly to the secondary school are: "Fundamental Issues in Secondary School Music," by Peter W. Dykema; "School Credit for Lessons under Outside Teachers," by Karl W. Gehrkens; "Vital Voice Training for Boys and Girls," by Mabelle Glenn; and "Group Voice Instruction," by Bernard U. Taylor.

279. GORDON, EDGAR B. "Secondary School Music in a Changing Social Order," *Music Educators Journal*, XXV (December, 1938), 24-25.

The author urges that music educators and teachers be aware of a changing world and be willing and ready to change their courses and philosophy to meet the needs of youth.

280. PRESCOTT, GERALD R., and CHIDESTER, LAWRENCE W. *Getting Results with School Bands*. New York: Carl Fischer, Inc., 1938. (Also Minneapolis, Minnesota: Paul A. Schmitt Music Co.) Pp. xii+274.

This book, based on practical experience and courses developed by the authors, discusses the development of school bands and the building and administering of an instrumental curriculum. Supplementary reading references are given at the close of each chapter, and a classified bibliography is included.

281. SEASHORE, CARL E. *Psychology of Music*. New York: McGraw-Hill Book Co., Inc., 1938. Pp. xx+408.

An overview of the psychology of music from the scientific standpoint. The author discusses, among other things, the musical mind, voice and musical

instruments, science of music, inheritance of musical talent, analysis of talent, development of musical skills, and musical aesthetics. A useful bibliography is appended.

282. WHITING HIGH SCHOOL. *Band and Orchestra Department*. Bulletin No. 6. Whiting, Indiana: Board of Education. Pp. 18.

A description of the instrumental course of study and its administrative scheme. Lists definite materials in various phases of instruction.

283. *Yearbook of the Music Educators National Conference, Thirty-first Year, 1938*. Chicago: Music Educators National Conference (64 East Jackson Boulevard), 1938. Pp. 532.

A compilation of papers, addresses, reports of committees, and programs given at the music educators' conference in St. Louis, March 27 to April 1, 1938. Material treats of various administrative and teaching problems at different levels of instruction.

ART¹

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284. BIRREN, FABER. "Psychology and the Art of Color," *Eastern Arts Association Bulletin*, XXIX (October 1, 1938), 21-32.

Presents a discussion of the seven-fold aspect of color, and advocates a psychological rather than a scientific approach to the problems of color harmony and color use.

285. CHENEY, SHELDON. *A World History of Art*. New York: Viking Press, 1937. Pp. xiv+946.

A complete and voluminous history of art in one volume. Presents a modern, critical analysis of various forms of art throughout the world from primitive times up to 1919. Contains five hundred illustrations, an outline of major epochs of art history, a table of dates of European monuments and masters, a descriptive bibliography, and a complete index.

286. DALTON SCHOOLS, DEPARTMENT OF PLASTIC ARTS. *What Does Art Do for the Child and Why Is It So Fundamental in Education?* New York: Dalton Schools, 1938. Pp. 22.

A statement of the ideals and principles which function in the art work of the Dalton experimental schools. Discusses the art program in the nursery and primary school, in the elementary school, and in the junior and senior high school.

287. HUNT, W. B., and HUNT, E. C. *Lettering of Today*. Milwaukee, Wisconsin: Bruce Publishing Co., 1937 (revised). Pp. 80.

¹ See also Item 611 in the list of selected references appearing in the November, 1938, number of the *Elementary School Journal*.

A compilation of plates showing thirty-five types of alphabets. No text is included. The book is valuable as reference material for art courses in high school, college, or art school.

288. LEE, HAROLD NEWTON. *Perception and Aesthetic Value*. New York: Prentice-Hall, Inc., 1938. Pp. xii+272.

The author contends that "aesthetic value" is what is good in a work of art aside from the story it tells, the moral it points, and other factors extraneous to the formal structure, and that it is good to the extent that it is physiologically pleasing. The book presents a theory for determining aesthetic value and suggests that many of the faults of modern art education could be rectified, or at least bettered, by a fundamental knowledge of aesthetics.

289. LEWISOHN, SAM A. *Painters and Personality*. New York: Harper & Bros., 1937. Pp. xxii+278.

A book dealing with the appreciation of pictures which helps the reader to see what is in the picture, what the artist is trying to say, and how his personality illuminates his work. Illustrated with 132 halftone reproductions of paintings.

290. LOGAN, JOSEPHINE HANCOCK. *Sanity in Art*. Chicago: A. Kroch, Publisher, 1937. Pp. xvi+128.

Presents a spirited attack on the vulgar and blatant note apparent in much modern painting. Beginning with the assumption that there is no excuse for bad taste in art, the author advances convincing arguments for "sanity in art."

291. PIJOAN, JOSEPH. *An Outline History of Art: Vol. XXI, Prehistoric Art, Art of Ancient Egypt, The Near East, and Greece and Rome*, pp. x+384; Vol. XXII, *Art of the Middle Ages in Europe, of Islam, in the Far East, and of the American Indians*, pp. 384; Vol. XXIII, *Art of the European Renaissance, Baroque, and Modern Art*, pp. 384. Chicago: University of Knowledge, Inc., 1938.

Three volumes from the University of Knowledge series of publications edited by Glenn Frank. Profusely illustrated.

292. PRICE, MATLACK. *Lettering—Its History, Principles & Practice*. New York: Art Education, Inc., 1937. Pp. 32.

A small, well-illustrated manual covering the essential concepts of lettering. Aims to develop an appreciation of fine lettering and sufficient technique and skills for effective execution of letter forms and arrangements in commercial art work.

293. PYNCHON, ADELINE LOBDELL. *Dinner Table Art for the Tired Business Man*. Chicago: Ralph Fletcher Seymour (Fine Arts Building), 1937. Pp. 138.

Compilation of newspaper articles from the *Chicago Journal of Commerce*. Aims to present a smattering of art knowledge to the businessman, or layman, as an aid in understanding the art activities about him.

294. *Record of the Convention of the Western Arts Association at Milwaukee, Wisconsin, 1938.* Western Arts Association Bulletin, Vol. XXII, No. 4. Indianapolis, Indiana: Western Arts Association (Harry E. Wood, Secretary, 5215 College Avenue), 1938. Pp. 148.

The following items have special significance in respect to the secondary-school program: Agnes Samuelson, "Every Teacher an Art Teacher"; Clara MacGowan, "Problems in Art Education"; Letitia Walsh, "Philosophy of Integration of the Arts"; Arthur G. Brown, "Practice of Integration of the Arts."

295. WHITFORD, WILLIAM G. "Art Education as Euthenics," *School Review*, XLVI (December, 1938), 745-53.

Advocates a balanced program in art education for the secondary school, incorporating the threefold aspects of the art experience, namely, functionalism (practical use of art in living), appreciation (enjoyable contacts with the arts), and creation (participation in the creative and productive arts).

HEALTH AND PHYSICAL EDUCATION¹

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296. BAKER, GERTRUDE M., WARNOCK, FLORENCE M., and CHRISTENSEN, GRACE D. *Graded Lessons in Fundamentals of Physical Education.* New York: A. S. Barnes & Co., 1938. Pp. x+368.

Outlines lesson plans for the teaching of motor skills.

297. BLAIR, HERBERT. *Physical Educational Facilities for the Modern Junior and Senior High School.* New York: A. S. Barnes & Co., 1938. Pp. xii+174.

Extremely valuable to persons interested in the construction of gymnasium buildings. It includes standards for judging facilities, opinions of authorities on specifications, and many floor plans.

298. CASSIDY, ROSALIND. *New Directions in Physical Education for the Adolescent Girl.* New York: A. S. Barnes & Co., 1938. Pp. xvi+232.

A novel presentation of methods by which teachers may plan their programs according to the individual needs and desires of adolescent girls.

299. CLAPSADDLE, MARGARET. "Playdays in a High School," *Journal of Health and Physical Education*, VIII (December, 1937), 607-10.

Presents, in an informal way, material that may serve as a playday manual.

300. COBB, WALTER FRANK. *Everyday First Aid.* New York: D. Appleton-Century Co., Inc., 1937. Pp. xvi+270.

An unusual and clever presentation of first-aid techniques.

¹ See also Items 660 (Conrad and Meister), 674 (Storey), and 675 (Wall and Zeidberg) in the list of selected references appearing in the November, 1938, number of the *Elementary School Journal*.

301. COZENS, FREDERICK WARREN; CUBBERLEY, HAZEL J.; and NEILSON, N. P. *Achievement Scales in Physical Education Activities for Secondary School Girls and College Women*. New York: A. S. Barnes & Co., 1937. Pp. x+166.
Descriptions of achievement tests and scoring scales.
302. EMERSON, HAVEN. "Alcohol and Narcotic Drugs," *Journal of Health and Physical Education*, VIII (December, 1937), 588-90.
These urgent problems of health are ably discussed.
303. FURNAS, C. C., and FURNAS, S. V. *Man, Bread and Destiny*. Baltimore: Williams & Wilkins Co., 1937. Pp. xx+364.
A readable study of misinformation and superstitions regarding the feeding of man.
304. HEIN, F. V. "The Teaching of Sport Skills," *Journal of Health and Physical Education*, VIII (October, 1937), 486-89.
An answer to the challenge of how to teach large numbers in small spaces and with inadequate materials.
305. HUGHES, WILLIAM L. (Editor and Collaborator). *The Book of Major Sports*. New York: A. S. Barnes & Co., 1938. Pp. 396.
Fundamentals of four major sports—football, basketball, baseball, and track and field—and coaching hints regarding each are presented in one volume by four authorities.
306. KREML, FRANKLIN; STIVER, DONALD; and RICE, THURMAN. *Public Safety*. Indianapolis, Indiana: Bobbs-Merrill Co., 1937. Pp. viii+318.
Presents material on safe living, safe driving, and first aid that is suitable for both junior and senior high schools.
307. LEE, MABEL. *The Conduct of Physical Education*. New York: A. S. Barnes & Co., 1937. Pp. xxiv+562.
Covers every phase of the physical-education program for girls and women.
308. MACÉWAN, CHARLOTTE G. "Rhythm Activities in High Schools," *Journal of Health and Physical Education*, IX (March, 1938), 140-41.
A discussion of the various types of dancing and how they may be best used.
309. POWDERMAKER, THERESE. *Physical Education Play Activities for Girls in Junior and Senior High Schools*. New York: A. S. Barnes & Co., 1938. Pp. xii+370.
A one-volume library of play activities, giving source materials, methods, organization, and complete descriptions of the activities.
310. STACK, HERBERT JAMES. "Accidents and the National Health," *Journal of Health and Physical Education*, IX (September, 1938), 412-15.
An appraisal of safety education and what can be done about it.

311. VOLTMER, E. F., and ESSLINGER, A. A. *The Organization and Administration of Physical Education*. New York: F. S. Crofts & Co., 1938. Pp. xii+468.
A practical book giving an analysis of duties of physical educators and a comprehensive treatment of problems of administration.
312. WATSON, GOODWIN. "Personality Growth through Athletics," *Journal of Health and Physical Education*, IX (September, 1938), 408-10.
Maintains that teachers of physical education have a special opportunity to mold personality.
313. WAYMAN, A. R. *Modern Philosophy of Physical Education*. Philadelphia: W. B. Saunders Co., 1938. Pp. 232.
A clear presentation of the tenets of modern physical education.

Educational Writings

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REVIEWS AND BOOK NOTES

A COMPLETE TREATISE ON SCHEDULE-MAKING.—Of the many functions which principals of high schools must perform, probably none is of greater immediate necessity than the making of the daily schedule. One can picture all the children of a school coming down the walk on the opening day, in some instances several thousands of them within a period of a half-hour, each expecting to be guided to his rightful place without confusion. To organize the school efficiently so that each child will find his place without delay calls for administrative skill of a high order. Principals have struggled with the problem for a long time, trying to avoid the all too common error of achieving efficiency at the expense of education.

During the past decade professional writings on the subject have been increasing until a respectable body of material has accumulated. For some time administrators have felt that, if this material was to be of most help to them, it must be brought together in usable, organized form. The author of a recent book¹ has met this need admirably. Professor Langfitt has sifted out the material pertinent to schedule-making and has brought it together with a pleasing degree of completeness. The scope of the book is rather broad, as may be seen from some of the topics treated: the daily schedule in high-school organization, school policies, information regarding pupils, teaching load, curriculum offerings, regulations and traditions affecting the daily schedule, building facilities, guidance, preliminary decisions, techniques, and later steps in schedule construction and registration.

The author views the daily schedule as a master plan of action for all activities. To the making of the schedule enough thought should be given to guarantee that the greatest possible play is given to all the desirable educative forces. Schedule-making, the author insists, must therefore begin with the educational philosophy accepted for the school, and the schedule in its final form must reflect this philosophy. Langfitt subsequently develops the kinds of information needed to accomplish this broad objective—information about pupils, teachers, curriculum offerings, school-plant facilities, and the like. In the developing of these topics, Professor Langfitt has brought together a large mass of useful information on matters which can be expressed quantitatively, such as length of school day, length of period, and practice with respect to assembly periods, extra-curriculum activities, and lunchrooms. This material, while pertinent to

¹ R. Emerson Langfitt, *The Daily Schedule and High-School Organization*. New York: Macmillan Co., 1938. Pp. xvi+340. \$2.50.

schedule-making, is also of much general worth to the administrator who wishes to keep himself well informed. No important study seems to have been overlooked, and the bibliographies presented at the ends of the chapters are complete and well selected. The book should prove valuable as a reference to all high-school administrators and to administrators at any other level who must discharge the obligation of making out a daily schedule or who wish to keep abreast of current practices in school organization.

J. M. HUGHES

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SUPERVISED STUDY A CENTRAL PROCESS OF ALL SCHOOL WORK.—In spite of a commonly accepted verbalized philosophy of modern democratic education, hundreds of studies have pointed out the emphasis which schools and teachers are still putting on memorization, recitation, and artificial experience in the typical schools of this country. Today the secondary school, as well as the elementary school, is a common school in America. Its chief responsibility is that of a social institution serving the social good. In a democracy education faces no more important task than developing in individuals and in groups the attitudes, the skills, and the techniques necessary to the recognition, the intelligent attack, and the solution of significant personal and social problems of all types. A person does not develop this facility as a result of exhortation or by mere reading; he must have continual experience with the various aspects of problem-solving. Herein lies one of the greatest challenges to educational institutions.

A recent book¹ represents a significant contribution to this major problem of modern secondary education. Although it also applies to the elementary level, the main emphasis is on learning in the junior and senior high school. The authors attempt (1) to show the place and the importance of study and learning power in the total school program; (2) to describe the nature of the learning process; (3) to outline and illustrate good methods for directing learning, with special reference to the development of independent learning power; and (4) to indicate procedures which will assist teachers and pupils to work satisfactorily.

The word "directing" in the title is well chosen. Even though the emphasis throughout the book is on pupil-directed experience, the authors recognize the necessity for the teacher to exercise a directive influence in order that pupils may not only be assured of experiences but that these experiences may be worth while. The authors constantly recognize that the problem of developing learning power or intellectual power cannot be, and should not be, separated from major curriculum problems. Pupil experiences must involve the best possible materials and activities considered from both the social and the psychological points of view.

The book is divided into three major parts: I. "The Processes of Learning

¹ Robert W. Frederick, Clarence E. Ragsdale, and Rachel Salisbury, *Directing Learning*. New York: D. Appleton-Century Co., Inc., 1938. Pp. xvi+528. \$2.75.

and Study," II. "The School and Direction of Study," and III. "Directing Study in the Classroom." Each of the sections seems to the reviewer to have been written by a different author. Although it is not so stated in the book, it is the reviewer's assumption that Part I was written by Ragsdale, Part II by Frederick, and Part III by Salisbury. The points of view of the various sections are, however, for the most part consistent.

Chapters under Part I are headed as follows: "Directing the Educational Process," "Nature of Study and Learning," "Conditions of Learning," "Motivation of Learning, Study, and Performance," "Efficiency in Learning and Study," and "Utility of the Products of Learning." To the advanced student this part of the book will probably appeal most strongly. Its emphasis is on principles rather than devices. The treatment is psychologically sound and progressive. No particular "psychology" is adhered to; rather psychological analysis is made basic, drawing on different "psychologies" as they contribute to the problem under consideration. Each chapter ends with a summary and selected references.

Part II contains critical chapters on the typical recitation and on various administrative plans for the direction of study. Other chapters discuss the unit-laboratory plan of instruction, the self-directive practice plan of instruction, the assignment, the how-to-study course, and the problem of initiating a program of directed study. The chapters on the unit-laboratory plan and the self-directive plan of instruction should be very suggestive to supervisors and teachers. Some readers, no doubt, will object to dividing the subjects of the school into two groups, namely, the ideational and the operative. The unit-laboratory plan is suggested for the ideational subjects and the self-directive practice plan for the operative subjects. Each chapter contains a list of questions and problems for discussion and a list of selected references.

Part III, the most lengthy section of the book, deals with various study techniques and is crowded with many valuable suggestions for classroom teachers. Its chapters include the following: "Developing Command of the Basic Study Skills," "Reading," "Making Notes," "Using the Library," "Fixing Skills," "Making Outlines and Summaries," "Writing Examinations," "Building a Research Theme," and "The Nature and Direction of Problem-solving." The chapters are replete with illustrative materials. The bibliographies are especially good.

The Appendix is a comprehensive bibliography on study containing more than three hundred references.

The book may well be studied seriously by principals, supervisors, and teachers. The reviewer agrees with the editors when they say: "The emphasis upon the processes of problem-solving thinking, the bold plea for training in the generalized attitudes and skills of thinking, and the insistence that these elements of thinking are transferable when properly taught are distinctly refreshing" (p. viii).

RUSSELL T. GREGG

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HELP ON THE STUDY-HALL PROBLEM.—In writing her recently published volume¹ on study halls, Miss Logasa draws on her extensive and successful experience as librarian at the University High School, University of Chicago. She does not, however, limit herself to her own experience, for she has studied practices in numerous schools and has surveyed the literature in the field.

"The present work is an attempt to formulate the purposes, problems, and practices in study-hall management and to suggest practical methods for their improvement" (p. ix). In carrying out her purposes, Miss Logasa has been specific rather than vague, practical rather than academic.

The scope of the volume is suggested by the following chapter headings: "The Study Hall as a Programing Device," "Control and Organization," "Administration of the Study Hall," "Equipment and Supplies," "General Study Supervision," "Methods of Improving Study," "Types of Pupil Behavior in the Study Hall," "Methods of Improving Pupil Behavior," "Potential Study-Hall Values," and "The Library Study Hall."

Miss Logasa suggests no single type of study-hall control or organization. "The general philosophy underlying the education of adolescent boys and girls in a particular school will affect the study hall as well as other activities carried on" (p. 21).

Since the primary emphasis of the book is on using the study hall as an aid to improving pupils' study habits, particular stress is placed on the importance of working with individual boys and girls. Specific aids, such as the "Application Profile," are suggested and illustrated.

Although she is a librarian, Miss Logasa does not overemphasize the library study hall. She does discuss this plan, however, analyzing its advantages and disadvantages.

This volume should be welcomed alike by high-school principals, study-hall supervisors, librarians, and teachers. Certainly it provides excellent basis for a series of faculty meetings on a most significant group of problems.

B. LAMAR JOHNSON

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SPANISH TEXTBOOKS IN THE MODERN MANNER.—One of the criticisms of formal education not infrequently heard is that the composition of textbooks lags far behind current theory and practice. That this criticism has no slight merit can quickly be established by a survey and comparative historical examination of textbooks and procedures. Furthermore, the field of language has fared especially badly at the hands of critics whose principal point is textual inertia.

Consequently it is more than usually pleasurable to one interested in the wel-

¹ Hannah Logasa, *The Study Hall in Junior and Senior High Schools*. New York: Macmillan Co., 1938. Pp. xiv+190. \$2.00.

fare of language in the schools to come upon a group of textbooks embodying features which not only are modern but are in one instance (the humorous cartoons in *Primer curso de español*) definitely radical for a language book although they are well known in some other fields. All the books here reviewed merit, in varying degrees, the description "modern." Their modernity does not consist primarily in content. No effort is here made, therefore, to describe each book in detail, but the effort is directed rather toward mentioning striking features of each.

Un vuelo a México,¹ by Castillo and Sparkman, is interesting, first of all, because it is carefully graded according to the word-frequency theory of modern textbook composition. It states meticulously on the title-page that it is "adding 376 new words and 33 new idioms to the 1,397 words and 203 idioms used in Books I-V [of the Heath-Chicago Spanish Series]. Total: 1,773 words and 236 idioms used in Books I-VI." It is, furthermore, in line with modern theory because its subject matter is that which probably has a maximum ulterior interest for American students, namely, Spanish American countries and their language, customs, and aspirations.

Paso a paso,² also by Sparkman and Castillo, makes the same careful effort to present material of high-frequency usage. This book is a nontechnical presentation of the fundamentals of Spanish grammar intended for beginners without previous language training. It presents 429 root words and 194 derivatives and is so carefully organized that reading may be begun as early as the third lesson.

The *Brief Spanish Grammar for Colleges*³ is a nearly conventional treatment, but one feature merits its inclusion in this review: the sound psychological order of topics and the unusual care with which drill exercises have been selected.

Easy Spanish Plays,⁴ by Cano and Sáenz, is interesting because it presents striking dramatic material within a restricted vocabulary range (over two-thirds of the vocabulary belongs in the first thousand words of the Buchanan *Spanish Word Book*). The authors fear that one of the things which take the edge off reading modern foreign language is having to look up too many words, and material which is exciting in content frequently involves just that, especially in volumes not so carefully prepared as is this one.

*¡Vamos a leer!*⁵ is charming in every way. Several of its black-and-white illus-

¹ *Un vuelo a México*. Lecturas compuestas y arregladas por Carlos Castillo y Colley F. Sparkman. Boston: D. C. Heath & Co., 1938. Pp. vi+58. \$0.32.

² Colley F. Sparkman and Carlos Castillo, *Paso a paso*: An Introduction to Spanish. Boston: D. C. Heath & Co., 1938. Pp. xii+158. \$1.20.

³ E. C. Hills, J. D. M. Ford, and G. Rivera, *Brief Spanish Grammar for Colleges*. Boston: D. C. Heath & Co., 1938. Pp. viii+214. \$1.40.

⁴ *Easy Spanish Plays*. Edited with exercises and vocabulary by Juan Cano and Hilario Sáenz. Boston: D. C. Heath & Co., 1938. Pp. x+226. \$1.12.

⁵ Sturgis E. Leavitt and Sterling A. Stoudemire, *¡Vamos a leer!* New York: Henry Holt & Co., 1938. Pp. xii+238+lviii. \$1.36.

trations are near-masterpieces. Informative enrichment material is so shrewdly infiltrated into the text that the reader finds he has picked up a surprising amount of information without having been aware of it. This book thus avoids the rather labored efforts made in some textbooks to develop international-mindedness. The contrast of this volume with the majority of older textbooks can be readily noted from the authors' statement that this book is not intended to teach pronunciation, grammar, or conversation but is purely and simply a graded recognition reader.

Primer curso de español,¹ to which reference was made above, is the most novel of the whole group, not in content, but in illustrations, of which there are three types: (1) photographs, and good ones; (2) out-and-out cartoons with Spanish captions, some of them very funny; and (3) pictorial representations of a serious nature, such as "Galicia" by Sorolla. In addition, inside the front and the rear covers there are striking maps in red and white of Spain and South America. Many persons would object to some of the material in this volume, but the content is all there. The reviewer, for one, believes that pupils will be much taken by its form.

In conclusion it may be said that rapport with reality such as is exhibited by the authors of the textbooks herein reviewed will go as far as any single factor in keeping foreign language in a respected place in the curriculum.

FRANCIS F. POWERS

University of Washington

A NEW ARRANGEMENT OF THE STUDY OF CIVILIZATION.—The decrease in time allotment at the secondary-school level for the study of the history of the rise and the development of Western civilization has driven teachers, curriculum-builders, and writers of textbooks to new and ingenious arrangements so that learning can be carried on more expeditiously. Many textbooks have simply tried to boil the story down from its old setting and still teach the same mass of facts that we "grew up in" before 1920. The textbooks usually gave us plenty of the "what" of history and some of the "why." Rarely have textbooks in history been written so that they justify to the learner the subject matter presented.

The textbook under consideration² attempts to do some things with world-history materials that seem very much worth while. To those teachers who have used Becker's *Modern History*, the arrangement of materials, the methods of presentation, the interesting style, and the fine attempt to justify history as a worth-while subject will not be new. This later textbook has many of the same characteristics.

¹ John M. Pittaro and Alexander Green, *Primer curso de español*. Boston: D. C. Heath & Co., 1938. Pp. xviii+572. \$1.80.

² Carl L. Becker and Frederic Duncalf, *Story of Civilization*. New York: Silver Burdett Co., 1938. Pp. xvi+864+xx. \$2.40.

The authors have divided the materials in this book into five units. The units, particularly the first three, are not built around centers of interest but are general subject-matter divisions and follow in a general way a chronological organization.

Unit I is on "The Earliest Civilizations," Unit II on "Greek and Roman Civilization," and Unit III on "The Beginnings of Modern Civilization." Unit I takes up only 70 pages, Unit II covers 122 pages, and Unit III fills 140 pages. Thus more than 500 pages are left for the study of "Modern Civilization." The first division of this unit (Unit IV) considers the political and the social evolution of the modern world from the pre-Revolutionary period to the present. Unit V, on the Industrial Revolution, not only tells the story of the rise of industrialism but very adequately presents the important place that applied science has had in the industrial advance and the place that socialism and social legislation have had in attempting to keep capitalism within decent bounds.

The book can be classified as a very superior textbook. The style is vigorous and interesting. The authors have done a splendid piece of work in interpreting ages and movements. The word choice and sentence structure are good. Tenth-grade pupils should be able to comprehend and to gain understandings. The illustrations are excellent. Thirty-five maps are used, twelve of which are in color. The art works reproduced are beautiful. The time lines not only show the lapse of time but show how civilizations and movements draw together, change each other, and then divide.

The teaching devices, on the whole, are good. Citations to other books and to the more detailed accounts in general works ought to help the teachers to arrange reading programs for the various ability levels. The suggested activities are good but not extensive.

W. FRANCIS ENGLISH

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MODIFYING THE GEOMETRY COURSE.—Criticism of the course in plane geometry in the high school has stimulated teachers and authors to experiment with new content and methods. Modification is taking place in at least two directions. One group seeks to attain the objectives of the course by refining the approach to the subject matter and methods used while retaining the traditional content in much its present form. Another group believes that development of ability in logical reasoning is the major objective of the course and that this ability can best be attained through the use of both nonmathematical and geometrical content. Two recent textbooks illustrate these two movements.

The authors of *Modern-School Geometry*¹ believe that increased emphasis

¹ John R. Clark and Rolland R. Smith, in co-operation with Raleigh Schorling, *Modern-School Geometry*. Yonkers-on-Hudson, New York: World Book Co., 1938. Pp. xiv+450. \$1.36.

must be placed on geometry as a way of thinking, that teachers must make greater effort to help the pupil to integrate all his mathematics and to see its relation to the world of which he is a part, and that they must teach for an understanding of the subject in such a way as to avoid rote learning. This textbook shows many of the characteristic features of the other textbooks of the series by the same authors.

An effort to simplify the presentation of the material is particularly evident in the first four chapters of the book. The authors review the geometric concepts, vocabulary, and skills usually taught in earlier grades. In chapter ii the "if-then" relationship is explained and used in many situations. Chapter iii provides experience in reaching conclusions through informal deductive reasoning. Chapter iv explains the nature of deductive proof and provides for application of such proof in many simple geometric situations. Ninety-four pages are devoted to this material, which is designed to prepare the pupil for the work that follows. Nonmathematical situations are frequently used in introducing a topic, but no exercises calling for reasoning in nonmathematical situations are included.

Reasoning is emphasized. Stress is laid on the fact that the validity of a conclusion depends on the validity of the definitions and assumptions upon which the conclusion is based. Practice is provided in discriminating between valid and false conclusions. The analytic method of attack is encouraged.

The authors have provided material for maintenance of abilities. Provisions for maintaining the skills and the principles of arithmetic and algebra are made in two ways. A number of geometric exercises require the pupil to use arithmetic or algebra in the solutions. This practice is especially commendable. Then, at frequent intervals a page labeled "Maintaining Skills" is inserted. These pages contain sets of strictly arithmetical or algebraic exercises. Certain pages labeled "Easy Review Exercises" are intended to maintain geometric principles. Other pages of "Harder Review Exercises" furnish material for the capable pupils.

Careful preparation of the material is evident. The book ranks high among those of its type. It is still the traditional course in plane geometry; the authors make no pretense of modifying the basic content of the course.

The authors of the other book, *Clear Thinking: An Approach through Plane Geometry*,¹ accept the development of logical reasoning as the primary objective of the course. They are attempting to meet the challenges thrown at the geometry course by presenting material which will refute the contention that the subject is abstract, difficult, and remote from the practical world. Their method of approach is as important as the content.

The book differs from traditional textbooks in at least two major respects, in the content and in the method that the authors use in developing techniques of thinking. Nonmathematical material forms an important element in the content of the course. This material is used to show the pupil the need for clear

¹ Leroy H. Schnell and Mildred Crawford, *Clear Thinking: An Approach through Plane Geometry*. New York: Harper & Bros., 1938. Pp. xviii+442: \$1.60.

thinking in numerous life-situations, to aid him in formulating his own problems, to illustrate common errors in reasoning, and to aid him in transferring the methods of geometry to nonmathematical situations. Units I, IX, and XVII consist entirely of nonmathematical materials. In Unit I the pupil is asked to rate the reasoning in certain simple situations described, to draw conclusions from tabular data and from graphs, to find hidden assumptions, and to judge the validity of given conclusions. Nonmathematical material is used frequently in the remaining units.

The other point relates to method. The content is so arranged that the pupil is encouraged to find, through experimentation and through reasoning, new facts and to discover proofs for the theorems independently of the textbook. Unit VII on "Proofs of Theorems" illustrates the method. In this unit the work is arranged on three levels. In Group 1 theorems are listed which the pupils are to try to prove. Most of these theorems are those that the pupils have discovered experimentally earlier in the course. Little or no further help is given on these pages. If the pupil is unable to succeed with a proof, he is instructed to turn to Group 2 of theorems later in the unit, where he will find this same theorem repeated with detailed suggestions for procedure. Finally, when the pupil has completed a proof for a theorem, he may turn to Group 3 of theorems to check his work. There he will find all the steps in the proof given in proper order. The authors suggest that the class be divided into small groups or committees for much of the experimental work and discussion on various topics.

The content, the organization, and the procedure followed in this textbook are sufficiently novel to make the reader wonder how well the material functions in the classroom. It seems that the book makes provision for requiring of the pupil much more original work and thinking than do most textbooks. One may question whether it gives him sufficient guidance. The authors state that the material is the outgrowth of an experimental program, that it has stood the test of classroom use. In spite of any lack of refinement, which is almost certain to occur in any new venture such as this, it is encouraging to see one of the experimental courses in geometry, of which there are several, appearing in form available for examination and use by other teachers. Every teacher of geometry should examine this book.

G. E. HAWKINS

*University High School
University of Chicago*

A NEW TEXTBOOK FOR SPEECH CLASSES.—The volume under review¹ is a solid textbook for college classes in speech. In their Foreword the authors state that their book is "designed to educate the student of speech in the preparation and presentation of effective public speeches" and that "no effort has been

¹ James Murray and Wesley Lewis, *Cardinal Aspects of Speech*. New York: Prentice-Hall, Inc., 1938. Pp. x+316. \$2.50.

made to consider any aspects of the subject in great detail" (p. v). Although the latter statement may be true as far as "presentation" is concerned, a great deal of detail has been used in teaching the student how to prepare a speech: the securing of source material and the organization and the writing of the outline. The book seems, in this way, a little out of balance; but, since the greater weight is thrown toward a skill in which many students are deficient, a reviewer need not be too critical of the point. The Foreword also emphasizes the authors' conviction that public speaking is not a form of exhibition but rather a public appearance with a serious underlying purpose. This view, harmonious with the serious times in which we live, is exemplified by the use of modern, worth-while and sometimes controversial subjects for sample outlines and memory and practice selections. The volume, it may be noted, abounds in such sample selections and outlines.

The organization of the book distributes sixteen chapters among four main parts, entitled "The Organization of Speeches," "The Physical Agents of Expression," "The Voice," and "Mental Bases of Speech." Sample chapter headings are "Types of Public Address," "The Outline of Preparation," "Delivering the Speech," "Problems in Physical Expression," "Breathing and Tone Emission," "Placing the Tone," and "The Mind and Audience Control." Questions and references complete each chapter. Four appendixes furnish further selections for practice, a chart for judging public speeches, and discussions of the physical bases of sound and the preparation of term papers. A sixteen-page index, including both subjects dealt with in the book proper and memory or practice selections, rounds out a worthy addition to the textbooks on college speech from the University of California at Los Angeles.

LOUIS TRAVERS

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MENTAL HYGIENE FOR HIGH-SCHOOL PUPILS.—Books have been written for high-school pupils about personality, about sex, and about security; but these types of material needed to be organized on a sane basis, in language understandable by the high-school pupil, by a person competent in the field of mental hygiene. Such a book is presented to adolescents by Donald McLean,¹ psychologist in the Los Angeles Institute of Family Relations. This book does not attempt to solve the problems of abnormal youth but is directed, rather, to normal, wholesome adolescents.

In Part I McLean summarizes the need and the value of mental health in our world of tensions and outlines three "drives" which he considers basic to human behavior. The terminology used in describing the drives are three of W. I. Thomas': recognition (popularity), response (love), and security. Thomas' fourth drive, adventure, is reduced to a few pages at the end of the

¹ Donald McLean, *Knowing Yourself and Others: Mental Hygiene for Young People*. New York: Henry Holt & Co., 1938. Pp. xx+276. \$1.40.

section "About Security." It may be questioned whether this drive is as significant as recognition.

Part II is "About Popularity" (the recognition drive). Units on "How To Improve Yourself" and "How To Smooth Your Relations with Others" are included. Here, as in the remainder of the book, are anecdotes, elements of case histories, supplementary reading lists, and an interesting variety of activities for pupils.

Part III, "About Love" (the response drive), contains units on "Why We Demand Affection," "Why the Family Is Important," "Becoming Less Dependent on the Home," "A Sane Attitude toward Sex," and "Boy and Girl Relationships." While the other parts of the book are fine, this section is especially good. It is a sane, nonemotional, generalized account which is equally interesting to boys and girls. It contains no formal "sex instruction" but shows the pupil the need of such information and tells him where to get it. To face the problems of boy-and-girl relationships realistically without upsetting some of the community is almost an impossible task, but McLean seems to have accomplished it.

Part IV, "About Security," deals with "Physical Security," "Money Security," "Growth Security," "Emotional and Mental Security," and "Adventure." This section adds a healthy mental-hygiene approach to the fairly extensive literature already available in this field. The reviewer would have preferred H. Y. McClusky's terminology of "adequacy" to "security," since the former term indicates that "security," in the literal sense, is impossible.

The book is interesting to pupils without being "common" and is much less "preachy" than most books for high-school people. The excellent illustrations are placed for the convenience of the printer rather than the reader; hence some of their aptness is lost.

This book will be invaluable to teachers of sociology, modern problems, home economics, and any courses which touch on the family and its problems. It could be used as supplementary reading in science and English courses. Some principals and teachers will want to inaugurate a course on personal problems in order to use this book. If this course does not reach all pupils, the book could be made available for group guidance programs.

JULIAN C. ALDRICH

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CURRENT PUBLICATIONS RECEIVED

GENERAL EDUCATIONAL METHOD, HISTORY, THEORY AND PRACTICE

BENNETT, CHESTER C. *An Inquiry into the Genesis of Poor Reading*. Teachers College Contributions to Education, No. 755. New York: Teachers College, Columbia University, 1938. Pp. viii+140. \$1.60.

- BUTLER, FRANK A. *The Improvement of Teaching in Secondary Schools*. Chicago: University of Chicago Press, 1939. Pp. x+390. \$3.00.
- COLCORD, JOANNA C. *Your Community: Its Provision for Health, Education, Safety, and Welfare*. New York: Russell Sage Foundation, 1939. Pp. 250. \$0.85.
- COLE, LUELLA. *Teaching in the Elementary School*. New York: Farrar & Rinehart, Inc., 1939. Pp. xvi+518. \$2.50.
- CURTIS, FRANCIS D. *Third Digest of Investigations in the Teaching of Science*. Philadelphia: P. Blakiston's Son & Co., Inc., 1939. Pp. xviii+420. \$3.50.
- Democracy and the Curriculum: The Life and Program of the American School*. Written in Collaboration by Harold Rugg, Editor, and Others. Third Yearbook of the John Dewey Society. New York: D. Appleton-Century Co., Inc., 1939. Pp. xiv+536. \$2.75.
- GRIFFITH, COLEMAN R. *Psychology Applied to Teaching and Learning: A First Book in the Field of Educational Psychology*. New York: Farrar & Rinehart, Inc., 1939. Pp. xii+650. \$2.60.
- HERBER, HOWARD T. *The Influence of the Public Works Administration on School Building Construction in New York State, 1933-1936*. Teachers College Contributions to Education, No. 762. New York: Teachers College, Columbia University, 1938. Pp. viii+108. \$1.60.
- HOLT, ANDREW DAVID. *The Struggle for a State System of Public Schools in Tennessee, 1903-1936*. Teachers College Contributions to Education, No. 753. New York: Teachers College, Columbia University, 1938. Pp. xvi+502. \$3.85.
- KANGLEY, LUCY. *Poetry Preferences in the Junior High School*. Teachers College Contributions to Education, No. 758. New York: Teachers College, Columbia University, 1938. Pp. xii+154. \$1.60.
- KUHN, EFFIE GEORGINE. *The Pronunciation of Vowel Sounds: An Evaluation of Practice Material for College Freshmen*. Teachers College Contributions to Education, No. 757. New York: Teachers College, Columbia University, 1938. Pp. vi+86. \$1.60.
- MURRAY, SISTER M. TERESA GERTRUDE. *Vocational Guidance in Catholic Secondary Schools: A Study of Development and Present Status*. Teachers College Contributions to Education, No. 754. New York: Teachers College, Columbia University, 1938. Pp. viii+164. \$1.60.
- PLUGGÉ, DOMIS E. *History of Greek Play Production in American Colleges and Universities from 1881 to 1936*. Teachers College Contributions to Education, No. 752. New York: Teachers College, Columbia University, 1938. Pp. xii+176. \$1.85.
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